

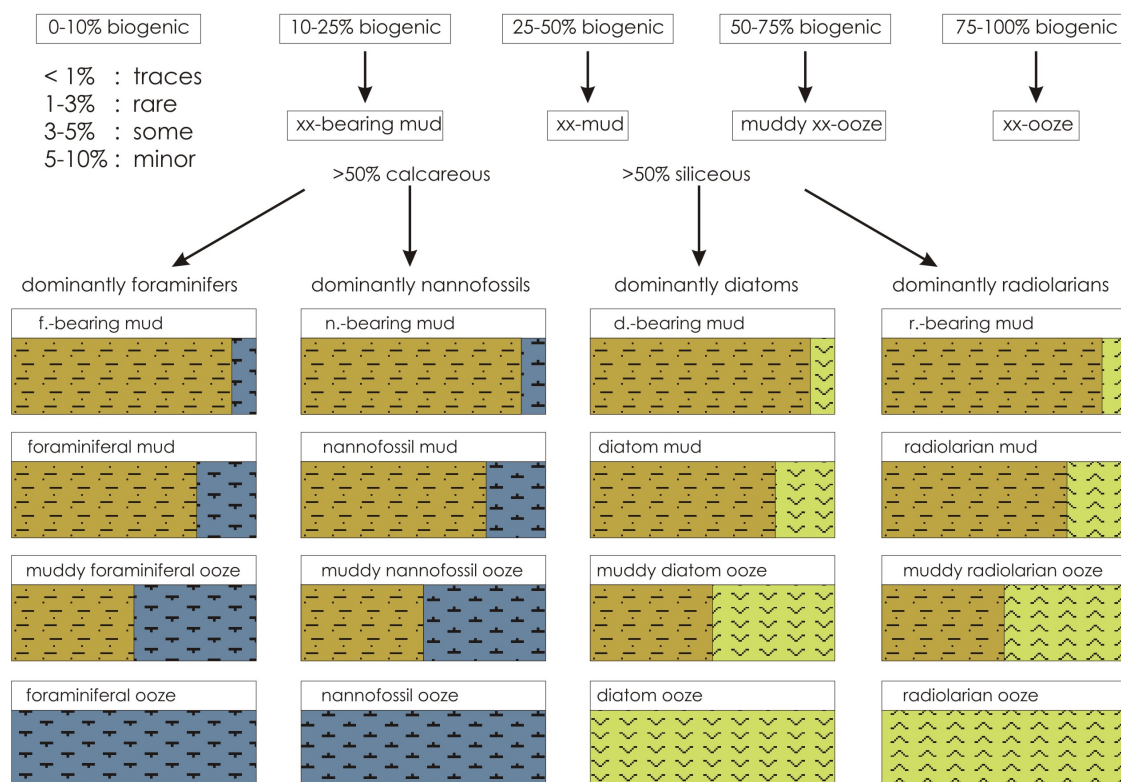
A.5 SO202-INOPEX SEDIMENT CORE DESCRIPTION

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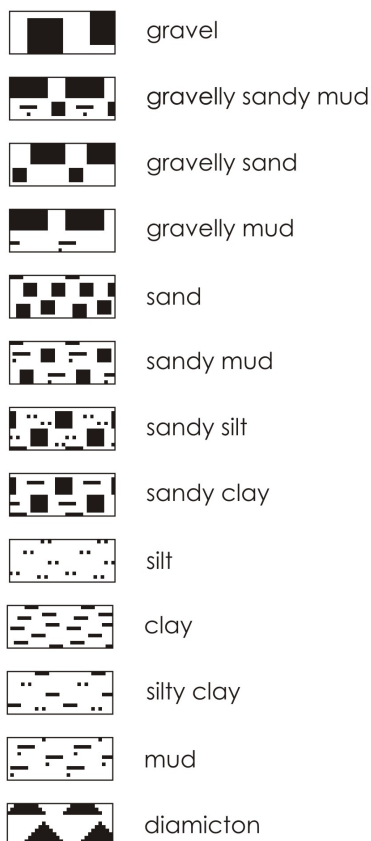
Legend for core description:

Nomenclature:



Legend for core description:

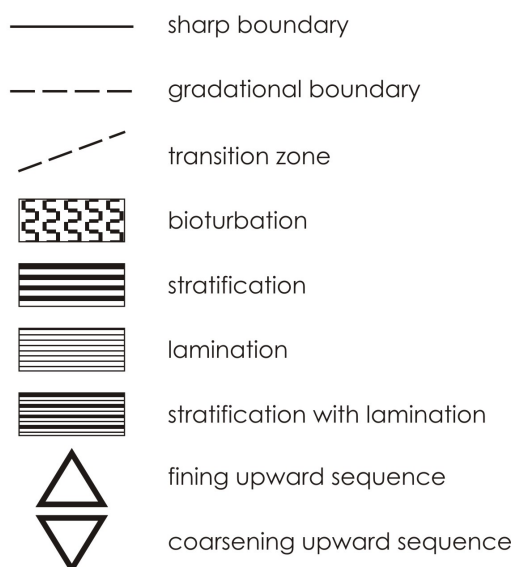
Lithology:



Lithology:



Structure:



Core ID: SO202-02-2 KOL
Recovery: 12.15 m

Latitude: 46° 58.081`N
Longitude: 156° 58.800`W
off Kurile Islands

Cruise: SO202 INOPEX
Water Depth: 4795 m

Lithology	Struct.	Color	Description	Age
0		10YR4/3	0 - 11 cm: Diatomaceous mud brown to dark brown	smear slide 0.5 cm
		2.5Y5/4		
		2.5Y4/4	11 - 26 cm: Diatom ooze with traces of colorless volcanic glass shards Transition from olive brown to light olive brown	smear slide 21.5 cm
			26 - 146 cm: Diatom-bearing silty clay with traces of colorless volcanic glass shards dark gray to olive gray	smear slide 36.5 cm 46 cm 80 cm 125 cm
		5Y4/1	35 - 36 cm, 45 - 46 cm: intervals of sandy mud, semilithified, altered volcanic material?	
			105 - 106 cm: sandy mud with sand-sized fragments of pumice and colorless to brownish volcanic glass shards, black	
			125 cm: sandy mud consisting of colorless volcanic glass shards and some lithogenic grains	
		5Y5/2	134 cm: limestone, Ø 30 mm, well rounded	
		2.5YR2.5/0		
		5Y5/2	146 - 156 cm: Fine sand to sandy mud consisting of brownish volcanic glass shards and traces of diatoms and lithogenic grains, dark brown to light olive brown	smear slide 147 cm
1			156 - 178 cm: Diatom-bearing mud with some sand-sized volcanic glass shards, olive gray	smear slide 174 cm
		2.5Y5/4 to 10YR4/3		
		5Y5/2	178 - 196 cm: Graded layer of silty sand (187 - 196 cm) to silt (178 - 187 cm) consisting of colorless volcanic glass shards and some lithogenic grains, broken pieces of pumice and some diatoms, light olive brown and olive brown	smear slide 181 cm 186 cm 191.5 cm 193.5 cm
		2.5Y5/4 & 2.5Y4/4		
		5Y5/2	196 - 210 cm: Diatom-bearing mud with some sand-sized volcanic glass shards, olive gray	smear slide 204.5 cm
		2.5Y5/4 & 2.5Y4/4		
		5Y5/2	210 - 217 cm: Silty clay with minor diatoms and some colorless volcanic glass shards	smear slide 214 cm
		2.5Y5/4 & 2.5Y4/4		
		5Y5/2	217 - 267 cm: Diatom-bearing mud to diatomaceous mud with some up to sand-sized colorless to greenish volcanic glass shards, olive gray	smear slide 246 cm 249 cm 258.5 cm
		2.5Y5/4 & 2.5Y2/0		
2		5Y4/1	244 - 251 cm: light olive brown and dark grayish brown	
		2.5Y5/4 & 2.5Y2/0		
		5Y4/1	267 - 283 cm: Silty clay with some diatoms and minor colorless volcanic glass shards;	smear slide 270 cm 271 cm 274.5 cm 280 cm
		2.5Y8/1	267 - 272 cm: abundant translucent grains	
		5Y6/1		
			283 - 297 cm: Silt to sandy silt consisting of colorless volcanic glass shards and some lithogenic grains, semilith.	smear slide 285.5 cm 293.5 cm 297 cm
			297 - 314 cm: Silty clay with some diatoms and traces of colorless volcanic glass shards	smear slide 310 cm
		5Y4/1	314 - 319 cm: Silty clay with some diatoms and colorless volcanic glass shards, partly altered, semilithified	
			319 - 368 cm: Silty clay with traces of diatoms and some colorless volcanic glass shards (up to sand-size)	smear slide 334 cm
			345 cm: sediment clast of semilithified material	
3		5Y5/2	368 - 379 cm: Silt consisting of colorless volcanic glass shards and some lithogenic grains	smear slide 370 cm
			379 - 432 cm: Diatom-bearing mud with some colorless volcanic glass shards	smear slide 410 cm
		2.5Y8/1 & 2.5Y3/1	432 - 435 cm: Silty sand consisting of colorless volcanic glass shards and some lithogenic grains	smear slide 434 cm
			435 - 485 cm: Diatom-bearing mud with colorless volcanic glass shards	
		5Y5/2	485 - 490 cm: Diatomaceous sandy mud with colorless volcanic glass shards and broken pieces of pumice; partly semilithified, ash layer?	
			490 - 568 cm: Diatom-bearing mud with traces of colorless volcanic glass shards	
		5Y4/1		
4				
5				

Fig. A.5-1a: Description of sediment core SO202-02-2 (piston core) 0.00 – 5.00 m

Core ID: SO202-02-2 KOL
Recovery: 12.15 m

Latitude: 46° 58.081`N
Longitude: 156° 58.800`W
off Kurile Islands

Cruise: SO202 INOPEX
Water Depth: 4795 m

Lithology	Struct.	Color	Description	Age
5	5Y4/1		490 - 568 cm: Diatom-bearing mud with traces of colorless volcanic glass shards	
			568 - 574 cm: Silt consisting of colorless volcanic glass shards and some lithogenic grains, semilithified <i>smear slide 570 cm</i>	
			574 - 597 cm: Diatom-bearing mud with minor volcanic glass shards and traces of radiolarians <i>smear slide 590 cm</i>	
			597 - 602 cm: Semilithified mud consisting of colorless volcanic glass shards and some lithogenic grains	
			602 - 611 cm: Diatom-bearing mud with minor volcanic glass shards	
6	5Y4/1		611 - 614 cm: Semilithified mud consisting of (altered) colorless volcanic glass shards and some lithogenic grains	
			614 - 657 cm: Silty clay with traces of diatoms	
			657 - 662 cm: Sandy mud consisting of colorless volcanic glass shards and lithogenic grains, traces of diatoms, semilithified <i>smear slide 658 cm</i>	
			662 - 754 cm: Diatom-bearing mud with minor volcanic glass shards <i>smear slide 700 cm</i>	
			676 - 681 cm, 691 cm: patches of dark gray	
7	5Y4/1		685 cm, 699 - 700 cm: white sediment clots, sandy silt, consisting of colorless volcanic glass shards and lithogenic grains, traces of diatoms	
			754 - 768 cm: Silty sand with abundant colorless volcanic glass shards and minor diatoms <i>smear slide 767 cm</i>	
			768 - 790 cm: Graded sequence from silty sand consisting of colorless volcanic glass shards with some lithogenic grains to sandy silt consisting of colorless volcanic glass shards with minor lithogenic grains to diatom-bearing mud with ubiquitous colorless volcanic glass shards and traces of radiolarians	
			smear slides: 775 cm, 783 cm, 788 cm	
			790 - 892 cm: Diatomaceous mud with some colorless volcanic glass shards <i>smear slide 853 cm</i>	
8	5Y4/1		811 - 813 cm: semilithified silty clay composed probably of altered volcanic glass shards, traces of diatoms	
			892 - 899 cm: Sandy silt consisting of colorless to brownish volcanic glass shards and minor lithogenic grains <i>smear slide 896 cm</i>	
			899 - 1043 cm: Terrigenous mud to sandy mud	
			905 - 907 cm: semilithified silty clay, probably composed of altered volcanic glass shards	
			915 - 923 cm: patches of very dark gray, sandy mud with colorless to brownish volcanic glass shards, minor lithogenic grains, minor translucent grains	
9	5Y4/1		smear slides: 920 cm, 943 cm	
10	5Y4/1			

Fig. A.5-1b: Description of sediment core SO202-02-2 (piston core) 5.00 – 10.00 m

Fig. A.5-1c: Description of sediment core SO202-02-2 (piston core) 10.00 – 12.15 m

Core ID: SO202-04-1 KOL
Recovery: 11.80 m

Latitude: 51° 51.800`N
Longitude: 163° 09.580`W
off Kamchatka

Cruise: SO202 INOPEX
Water Depth: 5248 m

Lithology	Struct.	Color	Description	Age
0			0 - 40 cm: Diatom-bearing mud with some colorless volcanic glass shards slightly mottled 33 - 34 cm: silty sand consisting of colorless to brownish volcanic glass shards and abundant translucent grains, some lithogenic grains, semilithified smear slides: 7 cm, 28 cm	
		10YR3/3		
		10YR3/1 10YR6/2		
			40 - 86 cm: Diatom-bearing silty clay slightly mottled 70 - 73 cm: sediment clot, diatom-bearing silt with abundant altered volcanic glass shards smear slide 71 cm	
			86 - 90 cm: Sandy mud consisting of altered volcanic glass shards, some diatoms, some lithogenic grains smear slide 87 cm	
1		5Y5/1		
			90 - 160 cm: Diatom-bearing silty clay slightly mottled smear slide 103 cm	
			160 - 330 cm: Diatom-bearing mud with some colorless volcanic glass shards moderately mottled smear slide 192 cm	
			210 - 216 cm: Silt to mud consisting of colorless volcanic glass shards and some lithogenic grains, abundant translucent grains in the lower part of the section, layered	
		5Y5/2		
			smear slides: 211 cm, 213 cm	
2			235 - 248 cm: Sandy silt to mud consisting of colorless to brownish volcanic glass shards and some lithogenic grains, abundant translucent grains, partly semilithified, layered	
		10YR3/1& 10YR6/2 5Y5/2		
			smear slides: 211 cm, 213 cm	
		10YR3/1& 10YR6/2		
			262 - 270 cm: Succession from semilithified mud with minor diatoms and colorless (partly altered) volcanic glass shards to diatomaceous mud with some colorless volcanic glass shards and traces of radiolarians to sandy silt consisting of colorless volcanic glass shards, partly altered	
		5Y5/2		
		10YR3/1& 10YR6/2		
			smear slides: 263 cm, 265 cm, 269 cm	
		5Y5/2		
3			300 - 305 cm, 330 - 335 cm: Succession from semilithified silt consisting of colorless volcanic glass shards and some lithogenic grains to diatom-bearing mud with some colorless volcanic glass shards, layered	
		10YR3/1& 10YR6/2		
		5Y5/2		
			smear slide 302 cm	
		10YR3/1		
			335 - 462 cm: Diatom-bearing silty clay slightly mottled smear slide 366 cm	
			354 - 356 cm, 364 - 367 cm, 427 - 429 cm: semilithified mud consisting of altered volcanic glass shards and minor lithogenic grains	
			387 cm: lonestone, Ø 15 mm	
		5Y5/1		
			442 cm: sediment clot, semilithified mud consisting of altered volcanic glass shards and minor lithogenic grains	
4			462 - 478 cm: Sandy mud to sandy silt consisting of colorless volcanic glass shards with some diatoms and some lithogenic grains partly semilithified smear slides : 464 cm, 474 cm	
			478 - 594 cm: Diatom-bearing mud with some colorless volcanic glass shards slightly mottled	
			485 - 486 cm, 523 - 525 cm, 556 - 558 cm, 573 - 574 cm: semilithified sandy mud consisting of altered volcanic glass shards and some lithogenic grains, traces of diatoms	
		5Y6/2 5Y7/1		
			smear slides: 486 cm, 503 cm	
		5Y5/1		
5				

Fig. A.5-2a: Description of sediment core SO202-04-1 (piston core) 0.00 – 5.00 m

Core ID: SO202-04-1 KOL
Recovery: 11.80 m

Latitude: 51° 51.800`N
Longitude: 163° 09.580`W
off Kamchatka

Cruise: SO202 INOPEX
Water Depth: 5248 m

Lithology	Struct.	Color	Description	Age
5			478 - 594 cm: Diatom-bearing mud with some colorless volcanic glass shards, slightly mottled 485 - 486 cm, 523 - 525 cm, 556 - 558 cm, 573 - 574 cm: semilithified sandy mud consisting of altered volcanic glass shards and some lithogenic grains, traces of diatoms 569 - 570 cm: sandy silt consisting of colorless volcanic glass shards and some lithogenic grains smear slides: 486 cm, 503 cm, 570 cm 594 - 599 cm: Semilithified mud consisting of colorless volcanic glass shards and some lithogenic grains <i>smear slide 596 cm</i>	
6		5Y5/1	599 - 669 cm: Diatom-bearing silty clay slightly mottled 622 - 623 cm: semilithified mud consisting of colorless volcanic glass shards and some lithogenic grains 642 - 647 cm: Silty sand consisting of colorless to brownish volcanic glass shards and some lithogenic grains <i>smear slide 645 cm</i>	
		7.5YR6/2	669 - 687 cm: Succession from silty sand consisting of colorless volcanic glass shards with minor lithogenic grains to mud consisting of colorless volcanic glass shards with some lithogenic grains to sandy silt consisting of colorless volcanic glass shards smear slides: 670 cm, 680 cm, 686 cm	
		10YR8/1 7.5YR6/2 5Y5/1 2.5Y2/0	687 - 820 cm: Diatom-bearing mud slightly mottled 697 - 699: semilithified mud consisting of colorless volcanic glass shards and altered volcanic material smear slides: 766 cm, 803 cm	
7		5Y5/1	820 - 834 cm: Sandy silt to sandy mud consisting of colorless to brownish volcanic glass shards <i>smear slide 831 cm</i>	
		5Y5/2	834 - 957 cm: Terrigenous mud with minor diatoms, slightly to moderately mottled 891 - 893 cm, 901 - 902 cm: semilithified mud consisting of colorless volcanic glass shards and altered volcanic material 865 - 876 cm: patches of dark gray <i>smear slide 909 cm</i>	
		7.5YR6/2	957 - 992 cm: Terrigenous mud with abundant altered volcanic glass shards <i>smear slide 974 cm</i>	
			992 - 997 cm: Silty sand consisting of colorless to brownish volcanic glass shards and some lithogenic grains	
8			997 - 1065 cm: Terrigenous mud slightly mottled	
9		5Y5/1		
		5Y5/2		
10		5Y5/1		

Fig. A.5-2b: Description of sediment core SO202-04-1 (piston core) 5.00 – 10.00 m

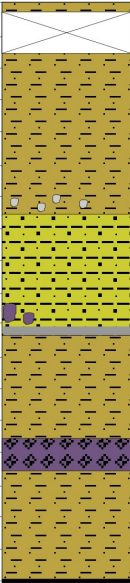
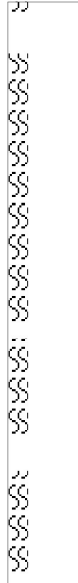
Core ID: SO202-04-1 KOL		Latitude: 51° 51.800`N Longitude: 163° 09.580`W off Kamchatka		Cruise: SO202 INOPEX Water Depth: 5248 m	
Recovery: 11.80 m					
Lithology	Struct.	Color	Description		Age
		5Y5/1	997 - 1065 cm: Terrigenous mud slightly mottled 1002 - 1015 cm: Foam 1063 - 1070 cm: patches of dark gray		
			1065 - 1103 cm: Terrigenous sandy mud with abundant altered volcanic glass shards and traces of diatoms 1092 - 1099 cm: patches of dark gray 1100 - 1103 cm: Silty sand consisting of colorless to brownish volcanic glass shards and some lithogenic grains <i>smear slide 1101 cm</i>		
		5Y5/2	1103 - 1137 cm: Terrigenous mud to sandy mud with minor colorless volcanic glass shards and altered volcanic glass shards		
		7.5YR6/2	1137 - 1147 cm: Sandy silt consisting of colorless to brownish volcanic glass shards <i>smear slide 1144 cm</i>		
		5Y5/1	1147 - 1180 cm: Terrigenous mud with traces of diatoms, minor colorless to brownish volcanic glass shards and altered volcanic material <i>smear slide 1170 cm</i>		
		7.5YR6/2			
		5Y5/1			
Base of sediment core					

Fig. A.5-2c: Description of sediment core SO202-04-1 (piston core) 10.00 – 11.80 m

5

135

Core ID: SO202-05-2 KOL			Latitude: 52°41.79'N Longitude: 164°55.18'E Obruchev Rise		Cruise: SO202 INOPEX Water Depth: 3369 m	
Recovery: 10.01 m						
Lithology	Struct.	Color	Description			Age
0		10YR3/3	0 - 53 cm: Mud-bearing diatomaceous ooze			
		10YR2/2	0 - 11 cm:	dark brown		
		2.5Y4/2	11 - 33 cm:	very dark brown with patches of dark brown	smear slide 5 cm	
		2.5Y3/2	33 - 53 cm:	dark grayish brown	smear slide 23 cm	
		2.5Y4/2				
		10YR4/1	53 - 71 cm: Diatomaceous mud			
		5Y3/1	53 - 56 cm:	very dark grayish brown	smear slide 54 cm	
		5Y4/2	56 - 71 cm:	dark grayish brown		
		5Y3/1	71 - 90 cm: Muddy diatomaceous ooze with some nannofossils			
			71 - 80 cm:	dark gray	smear slide 75 cm	
1			80 - 90 cm:	very dark gray		
			90 - 269 cm: Diatom-bearing mud			
			90 - 120 cm:	olive gray	smear slide 105 cm	
			120 - 225 cm:	very dark gray with some black streaks	smear slide 130 cm	
		5Y3/2	225 - 226 cm:	dark olive gray ash layer		
		5Y3/1	226 - 269 cm:	very dark gray	smear slide 230 cm	
			269 - 270 cm:	ash layer		
			270 - 793 cm: Diatomaceous mud			
			270 - 348 cm:	very dark gray with some black streaks	smear slide 280 cm	
2		5Y2.5/1	348 - 349 cm:	black ash layer	smear slide 350 cm	
		5Y3/1	349 - 386 cm:	very dark gray		
			386 - 392 cm:	sandy ash layer	smear slide 390 cm	
		5Y5/2	392 - 487 cm:	very dark gray		
		5Y3/1				
		3		5Y3/2	487 - 489 cm:	dark olive gray ash layer
	489 - 534 cm:			very dark gray		
4						
5						

Fig. A.5-3b: Description of sediment core SO202-05-2 (piston core) 0.00 – 5.00 m.

Core ID: SO202-05-2 KOL
Recovery: 10.01 m

Latitude: 52°41.79'N
Longitude: 164°55.18'E
Obuchev Rise

Cruise: SO202 INOPEX
Water Depth: 3369 m

Lithology	Struct.	Color	Description	Age
5		5Y3/1	270 - 793 cm: Diatomaceous mud	
		5Y3/3	534 - 535 cm: dark olive gray ash layer	smear slide 515 cm
		5Y4/1	535 - 556 cm: dark gray	
		5Y4/1	556 - 560 cm: very dark gray	
		5YR3/1 & 5Y4/1	560 - 580 cm: dark gray with patches of very dark gray	
		5YR3/1 & 5Y4/1	580 - 601 cm: dark gray	
6		5Y3/1	601 - 603,5 cm: very dark gray ash layer	
		5Y4/1	603,5 - 616 cm: dark gray	
		5Y3/1	616 - 617 cm: very dark gray ash layer	
		5Y4/1	617 - 636 cm: dark gray	
		5Y5/2	636 - 645 cm: olive gray ash layer	
		5Y4/1	640 cm: layer of dark greenish gray	smear slide 643 cm
			645 - 697 cm: dark gray	smear slide 660 cm
		5Y3/1	697 - 699 cm: very dark gray ash layer	
7		5Y4/1	699 - 730 cm: dark gray	
			730 - 732 cm: very dark gray	smear slide 735 cm
		5YR3/1 & 5Y4/1	732 - 784 cm: dark gray	
			784 - 785 cm: black ash layer	
			785 - 792 cm: dark gray	
			792 - 793 cm: olive gray	
		5Y2.5/1	793 - 805 cm: dark gray with streaks of olive gray	
8		5Y4/1	793 - 933 cm: Muddy diatomaceous ooze	
		5Y4/2	805 - 807 cm: olive gray	
		5Y4/1	807 - 840 cm: dark gray with streaks of olive gray	smear slide 810 cm
		5Y4/1	840 - 877 cm: dark gray	
		5Y4/1	877 - 880 cm: very dark grayish brown	
			880 - 888 cm: dark grayish brown	smear slide 885 cm
		2.5Y3/2	888 - 900 cm: grayish brown	
		2.5Y4/2	900 - 903.5 cm: reddish brown sandy ash layer	
		2.5Y5/2	903.5 - 914 cm: dark gray	
9		5YR4/3	914 - 916 cm: gray ash layer	
		5Y4/1	916 - 922 cm: dark gray	
		5Y5/1	922 - 933 cm: reddish brown ash layer, sandy top with some pebbles	smear slide 925 cm
		5Y4/1	933 - 1000 cm: diatom-bearing mud	
			933 - 997 cm: dark gray with black and dark green streaks	
			997 - 1000 cm: very dark gray	
10		5Y3/1		

Base of sediment
core at 1001 cm

Fig. A.5-3c: Description of sediment core SO202-05-2 (piston core) 5.00 – 10.00 m.

Core ID: SO202-07-1 KOL
Recovery: 17.97 m

Latitude: 51°16.30'N
Longitude: 167°41.98'E
Detroit Summit

Cruise: SO202 INOPEX
Water Depth: 2350 m

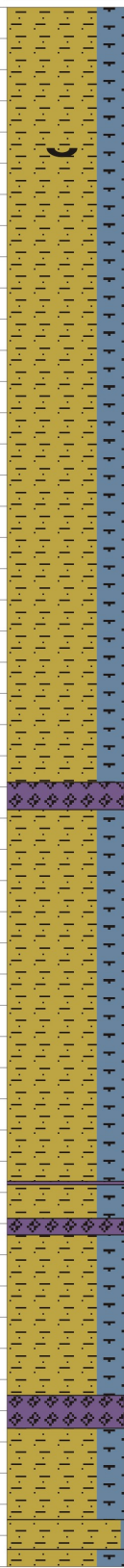
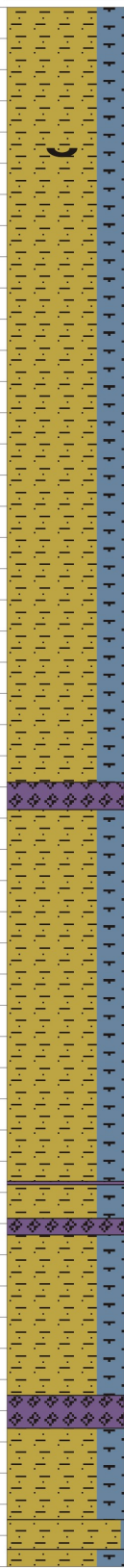
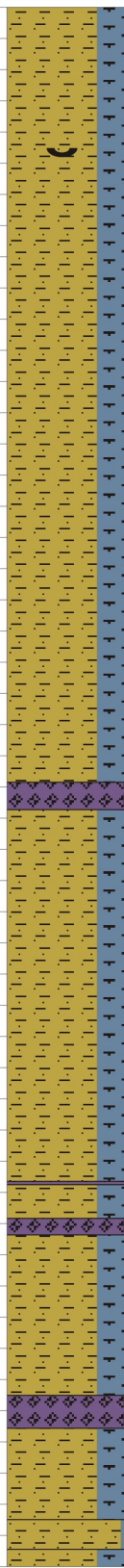
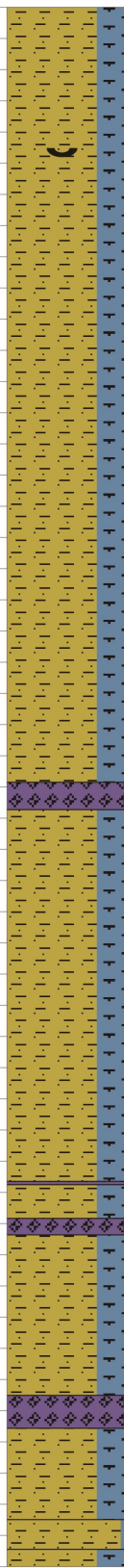
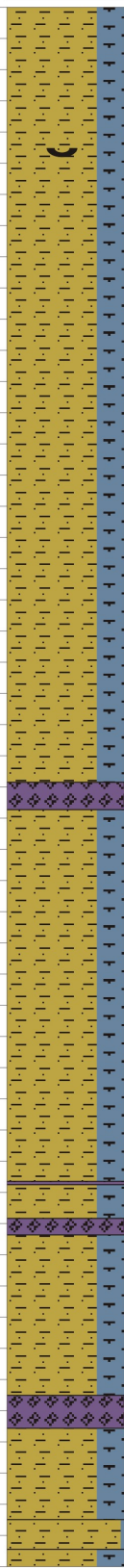
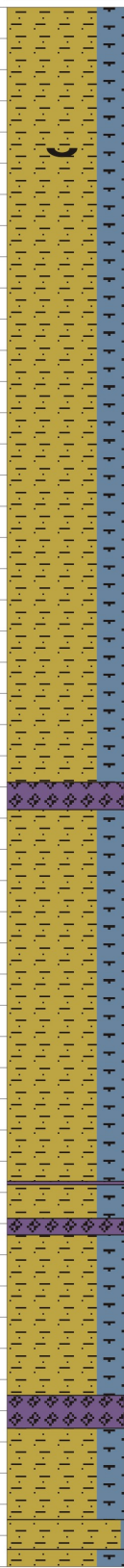
Lithology	Struct.	Color	Description		Age
0		2.5Y5/4 2.5Y5/3 5Y5/1	0 - 13 cm:	foraminifera-bearing mud to foraminiferal mud, light olive brown <i>smear slide 5 cm</i>	
		13 - 55 cm:	foraminifera-bearing mud to foraminiferal mud, gray, grading into olive gray <i>smear slide 13.5 cm</i>		
		5Y4/2 5Y4/1	47 cm:	shell fragment	
		55 - 249 cm:	dark gray mud, occasional black streaks <i>smear slide 19 cm</i> <i>smear slide 50 cm</i>		
			131 - 132 cm:	greenish layer	
			148 - 157 cm:	disturbed interval, sediment with high water content	
			177 & 185 cm:	greenish layers	
1					
2					
3		5Y5/2 5Y4/1	249 - 258 cm:	ash layer, olive gray <i>smear slide 253 cm</i>	
		258 - 431 cm:	dark gray mud, occasional black streaks		
4					
5		5Y4/2		<i>smear slide 420 cm</i>	
		5Y4/1	431 - 446 cm:	dark gray with black streaks	
		5Y4/2 5Y4/1	446 - 456 cm:	ash layer	
		456 - 485 cm:	dark gray with black streaks		
		485 - 494 cm:	mud with some foraminifera <i>smear slide 490 cm</i>		
		5Y5/1 5Y4/1	494 - 540 cm:	foraminifera-bearing mud	

Fig. A.5-4a: Description of sediment core SO202-07-1 (piston core) 0.00 – 5.00 m.

Core ID: SO202-07-1 KOL
Recovery: 17.97 m

Latitude: 51°16.30'N
Longitude: 167°41.98'E
Detroit Summit

Cruise: SO202 INOPEX
Water Depth: 2350 m

Lithology	Struct.	Color	Description	Age
5	5Y4/1	494 - 508 cm:	foraminifera-bearing mud	
	5Y4/1	508 - 540 cm:	mud with some foraminifera	
			<i>smear slide 530 cm</i>	
	5Y4/3	540 - 580 cm:	foraminifera-bearing mud, black streaks and dots	
		580 - 590 cm:	mud with some foraminifera, streaks	
			<i>smear slide 590 cm</i>	
		590 - 600 cm:	foraminifera-bearing mud	
		600 - 620 cm:	mud with some foraminifera	
	5Y4/1	620 - 708 cm:	foraminifera-bearing mud	
6		628 cm:	streak (5YR4/1)	
		632 - 639 cm:	patch (5YR4/1) and black streaks	
			<i>smear slide 635 cm</i>	
	5Y4/1			
	5Y5/1	674 - 698 cm:	patches (5Y5/3)	
	5Y5/1			
			<i>smear slide 690 cm</i>	
	5Y5/1	708 - 714 cm:	mud with some foraminifera	
	10YR4/1	714 - 721 cm:	foraminifera-bearing mud	
	5Y5/1		<i>smear slide 715 cm</i>	
7	5Y4/2	721 - 751 cm:	mud with some foraminifera	
	5Y4/1	751 - 1119 cm:	foraminifera-bearing mud	
8	5Y6/2	810 - 814 cm:	ash layer	
	5Y3/2			
	5Y4/1		<i>smear slide 813 cm</i>	
	5Y5/1			
	5Y4/1	839 - 866 cm:	black streaks	
		866 - 869 cm:	ash layer	
	5Y6/2 & 5Y4/1	883 - 890 cm:	ash layer	
			<i>smear slide 886 cm</i>	
	10YR4/1			
9	5Y4/1		<i>smear slide 920 cm</i>	
	5Y5/1			
	5Y4/1			
		970 cm:	black streak pronounced	
	5Y5/1	983 - 992 cm:	ash layer (983 - 987 cm: 2.5Y5/3, 987 - 990 cm: 10YR8/1, 990 - 992 cm: 5GY8/1)	
			<i>smear slide 989 cm</i>	
	5Y4/3			
10				

Fig. A.5-4b: Description of sediment core SO202-07-1 (piston core) 5.00 - 10.00 m.

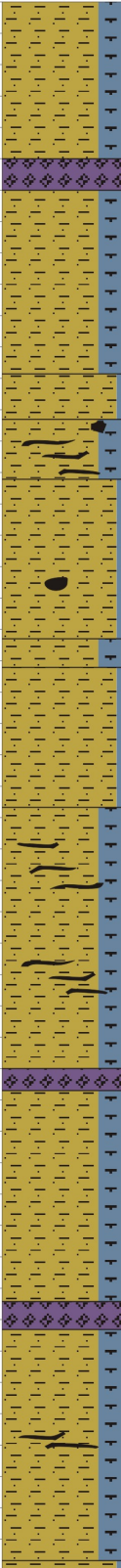

Core ID: SO202-07-1 KOL			Latitude: 51°16.30'N Longitude: 167°41.98'E Detroit Summit		Cruise: SO202 INOPEX Water Depth: 2350 m	
Recovery: 17.97 m						
Lithology	Struct.	Color	Description		Age	
		5Y5/3 ↓ 5Y5/1 5Y4/1	751 - 1119 cm: foraminifera-bearing mud 1016 - 1050 cm: black streaks			
			smear slide 1030 cm			
		5Y5/1 & 5Y4/1 5Y4/1 5Y5/3	1050 - 1060 cm: ash layer			
			smear slide 1056 cm			
			1096 - 1133 cm: black streaks			
			smear slide 1090 cm			
		5Y4/1 5Y4/2	1119 - 1133 cm: mud with some foraminifera			
		5Y4/1	1133 - 1152 cm: foraminifera-bearing mud green streaks			
		5Y4/2 ↓	1152 - 1203 cm: mud with some foraminifera			
			smear slide 1130 cm			
		5Y5/2 5Y5/1	1152 - 1253 cm: black streaks			
		5Y4/1				
		5Y4/2 5Y4/2 ↓	1203 - 1212 cm: foraminifera-bearing mud 1212 - 1258 cm: mud with some foraminifera			
		5Y4/1				
		10YR4/1 5Y3/1	1257 - 1258 cm: green streaks (5G4/1) 1258 - 1497 cm: foraminifera-bearing mud 1258 - 1315 cm: black and green streaks			
			smear slide 1290 cm			
			1315 - 1340 cm: black streaks			
		10YR6/2 5Y4/2	1340 - 1347 cm: ash layer			
			smear slide 1343 cm			
		5Y4/1				
		5Y3/1 5Y4/1	1385 - 1414 cm: black streaks			
			smear slide 1390 cm			
		10YR3/1 5Y4/1 5Y4/3	1414 - 1423 cm: ash layer			
			smear slide 1420 cm			
			1430 - 1450 cm: foraminifera bearing			
		5Y4/1 ↓	1450 - 1497 cm: black streaks			
			smear slide 1490 cm			
		5Y4/3	1497 - 1523 cm: mud with some foraminifera			

Fig. A.5-4c: Description of sediment core SO202-07-1 (piston core) 10.00 - 15.00 m.

Core ID: SO202-07-1 KOL			Latitude: 51°16.30'N		Cruise: SO202 INOPEX	
Recovery: 17.97 m			Longitude: 167°41.98'E		Water Depth: 2350 m	
			Detroit Summit			
Lithology	Struct.	Color	Description			Age
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Fig. A.5-4d: Description of sediment core SO202-07-1 (piston core) 15.00 – 17.97 m.

Core ID: SO202-07-6 KAL
Recovery: 4.69 m

Latitude: 51° 16.287'N
Longitude: 167° 41.982'E
Detroit Seamount

Cruise: SO202 INOPEX
Water Depth: 2340 m

Lithology	Struct.	Color	Description	Age
0			12 - 25 cm: Calcareous diatomaceous ooze, forams & traces of coccoliths, some radiolarians, light yellowish brown	smear slide 20 cm
		2.5Y6/3		
		2.5Y6/1	25 - 35 cm: Calcareous diatomaceous mud massiv, with forams and coccoliths, some volcanic glass shards, gray	smear slide 30 cm
		2.5Y4/2 & 5Y5/4	35 - 60 cm: Foram-bearing diatomaceous ooze with patches of pale yellow, slightly mottled olive	smear slide 55 cm
		5Y5/4		
		2.5Y4/2	60 - 75 cm: Transition from diatomaceous silty clay to foram-bearing diatomaceous ooze	
		5G5/2		
		5Y4/1	75 - 189 cm: Diatomaceous silty clay with minor coccoliths and traces of forams, dark gray	smear slide 100 cm 135 cm
		5G5/2		
		5Y4/1	81 cm, 85 cm, 110 cm, 135 cm, 170 - 173 cm: Diatomaceous silty clay with minor coccoliths and volcanic glass shards, clots, sandy pieces of pumice, grayish green layers	
1		5G5/2		
		5Y4/1	189 - 195 cm: Sand to silty sand consisting of colorless & greenish to brownish volcanic glass shards, traces of diatoms	smear slide 191 cm
		5Y4/1	193 - 194 cm: Layer of fine ash	
		5G5/2	195 - 198 cm: Silty clay with minor diatoms, dark gray	
		5G5/2 & 2.5Y6/2		
		2.5Y4/1	198 - 207 cm: Calcareous diatomaceous mud with forams and coccoliths, dark grayish brown	
		2.5Y4/2		
		2.5Y4/1	207 - 213 cm: Silty clay with minor diatoms, dark gray	
		2.5Y4/2		
		2.5Y4/1	213 - 229 cm: Calcareous diatomaceous mud with forams and coccoliths, dark grayish brown	
2		5G5/2		
		2.5Y4/1	229 - 310 cm: Transition from terrigenous mud with some diatoms and pumice to diatomaceous silty clay with minor forams and traces of coccoliths, dark gray	smear slide 240 cm 246 cm 300 cm
		5G5/2		
		5G5/2		
		2.5Y4/1	246 cm, 282 cm, 288 cm & 300 cm: Diatom-bearing sandy mud with volcanic glass shards, clots, grayish green layers	
		5G5/2		
		5Y5/3	310 - 330 cm: Diatom ooze with traces of coccoliths and some colorless volcanic glass shards (transparent), slightly mottled, sediment clasts, olive	smear slide 325 cm
		2.5Y4/1		
		2.5Y6/2	330 - 340 cm: Diatom-bearing mud with traces of coccoliths and some volcanic glass shards, dark gray	smear slide 339 cm
		5Y5/3		
3			340 - 360 cm: Diatomaceous mud with some forams and sediment clasts, olive	
		2.5Y4/2		
			345 - 354 cm: Layer of ash (fine sand consisting of volcanic glass shards)	
			360 - 396 cm: Diatom-bearing mud with some forams, slightly mottled, dark grayish brown	smear slide 370 cm 385 cm
		2.5Y4/1		
		2.5Y4/2	396 - 409 cm: Diatom-bearing silty clay, slightly mottled, dark gray	
		2.5Y4/1	409 - 425 cm: Diatomaceous mud with some forams, slightly mottled, dark grayish brown	smear slide 420 cm
		5Y6/2	425 - 437 cm: Diatom-bearing mud with some forams and radiolarians, slightly mottled, dark gray	smear slide 450 cm
			437 - 469 cm: Diatom ooze with minor forams and traces of coccoliths, light olive gray	
4				
5				

Fig. A.5-5a: Description of sediment core SO202-07-6 (kasten core) 0.00 – 4.69 m.

Fig. A.5-6b: Description of sediment core SO202-10-5 (piston core) 0.00 – 5.00 m.

Core ID: SO202-10-5 KOL
Recovery: 22.63 m

Latitude: 52°44.57'N
Longitude: 179°50.87'E
southern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 1470 m

Lithology	Struct.	Color	Description	Age
		5Y4/3	0 - 535 cm: Sponge needles-, radiolaria- and foraminifera-bearing diatomaceous ooze to muddy diatomaceous ooze	
		5Y4/3 & 5Y3/1 & 5Y5/3 & 5Y6/4	535 - 655 cm: Radiolaria-bearing diatomaceous ooze with some mud, slumped	
			535 - 655 cm: olive to pale olive	
			535 - 547 cm: ash layer	
			very dark gray	
			553 - 555 cm: ash layer	
			very dark gray	
			<i>smear slide 570 cm</i>	
		5Y4/2	655 - 898 cm: Mud- and radiolaria-bearing diatomaceous ooze with some sponge needles	
		5Y4/3	655 - 685 cm: muddy with very few black sand grains	
			olive gray	
			<i>smear slide 680 cm</i>	
			685 - 898 cm: muddy with some black sand grains, spots of ash	
			olive	
			708 cm: shell fragments	
			723 cm: dark layer	
			<i>smear slide 723 cm</i>	
			895 cm: gray spot (ash)	
			<i>smear slide 895 cm</i>	
			898 - 1063 cm: Diatomaceous mud to radiolaria-bearing muddy diatomaceous ooze	
			898 - 1063 cm: olive	
			<i>smear slide 900 cm</i>	
			<i>smear slide 902 cm</i>	
			<i>smear slide 903 cm</i>	
			903 - 905 cm: fragments of layer of hard material	
			dark gray	
			<i>smear slide 905 cm</i>	
			910 - 911 cm: dropstone, Ø ~ 1 cm, black metamorphic rock	

Fig. A.5-6c: Description of sediment core SO202-10-5 (piston core) 5.00 – 10.00 m.

Core ID: SO202-10-5 KOL
Recovery: 22.63 m

Latitude: 52°44.57'N
Longitude: 179°50.87'E
southern Bowers Ridge

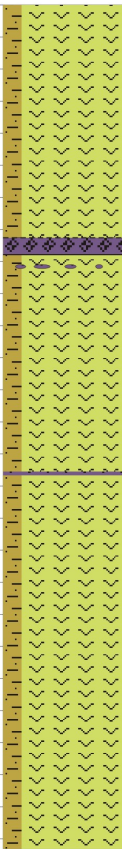
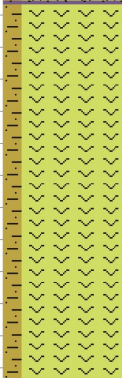


Cruise: SO202 INOPEX
Water Depth: 1470 m

Lithology	Struct.	Color	Description	Age
		5Y4/4	898 - 1063 cm: Diatomaceous mud to radiolaria-bearing muddy diatomaceous ooze	
			898 - 1063 cm: olive	
			1019 - 1024 cm: high abundance of black sand grains, larger than in the surroundings	
			high porosity	
			<i>smear slide 1022 cm</i>	
		5Y3/2	1063 - 2263 cm: Mud- and radiolaria-bearing diatomaceous ooze	
			1063 - 1072 cm: transition zone to dark olive gray	
			1072 - 1110 cm: dark olive gray	
		5Y4/2	<i>smear slide 1100 cm</i>	
			1110 - 1116 cm: silty ash with some sponge needles, diatoms and radiolarians	
			bioturbated at the top, transition zone at the bottom	
			no gradation	
			<i>smear slide 1112 cm</i>	
			1116 - 1315 cm: muddy with few black sand grains	
			olive gray	
			<i>smear slide 1130 cm</i>	
			<i>smear slide 1300 cm</i>	
			1315 - 1317 cm: transition zone to dark olive gray, transition zone bioturbated	
		5Y3/2	1317 - 1410 cm: few black sand grains	
			<i>smear slide 1320 cm</i>	
			1375 - 1377 cm: mud- and radiolaria-bearing diatomaceous ooze with some foraminifers and sponge needles	
			black grains more abundant	
			<i>smear slide 1376 cm</i>	
			1410 - 1416 cm: transition zone to olive	
		5Y4/3	1416 - 1445 cm: silty clay with white particles, some carbonate	
			some black spots	
			1417 - 1418 cm: dropstone, Ø ~ 0.5 cm, black volcanic rock?	
		5Y4/2	1445 - 1447 cm: transition zone to olive gray	
			1447 - 1523 cm: silty clay with few black sand grains	
			olive gray	

Fig. A.5-6d: Description of sediment core SO202-10-5 (piston core) 10.00 – 15.00 m.

Core ID: SO202-10-5 KOL Recovery: 22.63 m		Latitude: 52°44.57'N Longitude: 179°50.87'E southern Bowers Ridge		Cruise: SO202 INOPEX Water Depth: 1470 m	
Lithology	Struct.	Color	Description	Age	
		5Y4/2	1063 - 2263 cm: Mud- and radiolaria-bearing diatomaceous ooze		
			1523 - 1533 cm: transition zone to olive		
		5Y4/4	1523 - 1579 cm: a lot of white, easily visible particles, some carbonate <i>smear slide 1540 cm</i>		
			1579 - 1638 cm: silty clay with few black spots		
			1586 cm: mud- and radiolaria-bearing diatom-ooze, high porosity black <i>smear slide 1586 cm</i>		
		5Y4/2	1638 - 1639 cm: diatom-, radiolaria- and sponge needle-bearing silty mud very dark gray <i>smear slide 1638 cm</i>		
			1639 - 1721 cm: silty clay with few black spots olive <i>smear slide 1674 cm</i>		
		2.5Y3/0			
		5Y4/3	1679 - 1682 cm: radiolaria-bearing muddy diatomaceous ooze high abundance of gray material		
		5Y4/4	1721 - 1746 cm: silty clay with black sandy grains olive		
		2.5Y2/0	1746 - 1749 cm: silty mud with some diatoms, fining upward sequence black <i>smear slide 1748 cm</i>		
		5Y5/4	1749 - 1874 cm: silty clay, some carbonate olive <i>smear slide 1800 cm</i>		
		5Y4/3	1838 - 1848 cm: slightly darker material, olive		
		5Y5/4			
			1874 - 1878 cm: transition zone to dark olive gray		
		5Y3/2	1878 - 1904 cm: silty clay, no more white spots		
			1904 - 2072 cm: silty clay with white spots		
			1944 - 1949 cm: porosity slightly higher than surrounding material <i>Smear slide 1946 cm</i>		
20					

Fig. A.5-6e: Description of sediment core SO202-10-5 (piston core) 15.00 – 20.00 m.

Core ID: SO202-10-5 KOL			Latitude: 52°44.57'N		Cruise: SO202 INOPEX	
Recovery: 22.63 m			Longitude: 179°50.87'E		Water Depth: 1470 m	
southern Bowers Ridge						
Lithology	Struct.	Color	Description			Age
		5Y3/2	1063 - 2263 cm: Mud- and radiolaria-bearing diatomaceous ooze			
			1904 - 2072 cm: silty clay with white spots			
			2012 cm: light gray shell fragments			
			2072 - 2078 cm: ash layer consisting of diatom-bearing mud to mud, fining upward sequence, at the top bioturbated with upper material			
		5Y6/2 & 10YR7/1 & 10YR5/1	from top to bottom: light olive gray, light gray, gray			
		5Y4/4	smear slide 2073 cm smear slide 2076 cm Smear slide 2077 cm			
		5Y4/2	2078 - 2100 cm: silty clay with few white and black grains			
			2081 - 2082 cm: mud with some diatoms, spot of light gray material			
			smear slide 2082 cm			
		5Y4/1	2100 - 2263 cm: silty clay with few black grains and party white grains, some black spots			
			smear slide 2146.5 cm			
			2146.5 cm: sponge needle- and radiolaria-bearing diatomaceous mud			
			dark gray			
			2261 cm: shell fragments			
Base of sediment core						
						
						

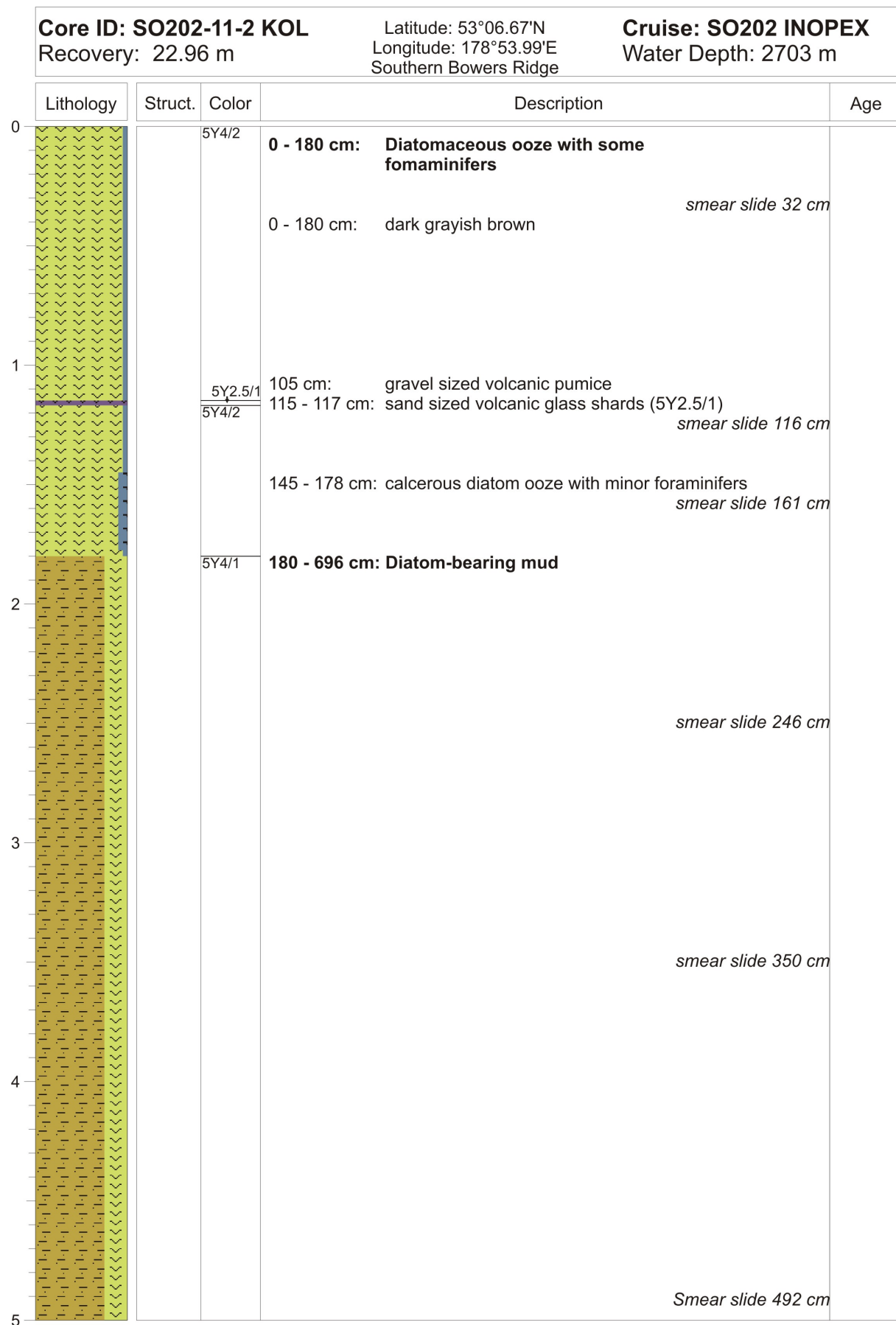


Fig. A.5-7a: Description of sediment core SO202-11-2 (piston core) 0.00 – 5.00 m.

Core ID: SO202-11-2 KOL
Recovery: 22.96 m

Latitude: 53°06.67'N
Longitude: 178°53.99'E
Southern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2703 m

Lithology	Struct.	Color	Description	Age
5		5Y4/1	180 - 696 cm: diatom-bearing mud dark gray	
6				
7		5Y5/4	696 - 739 cm: diatomaceous ooze, 5Y5/4 <i>smear slide 716 cm</i> <i>smear slide 719 cm</i>	
			739 - 760 cm: diatom-bearing mud, dark grayish brown	
8		5Y4/2	760 - 809 cm: dark grayish brown diatomaceous sandy mud with minor sand sized volcanic glass shards	
		5Y5/4	809 - 867 cm: 5Y5/4 diatomaceous ooze with traces of foraminifers and some sand sized volcanic glass shards	
9		7.5YR2/0	<i>smear slide 835 cm</i>	
		5Y5/4	834 - 836 cm: incursion of sandy mud with abundant volcanic glass shards (7.5YR2/0)	
10		5Y4/2	867 - 897 cm: dark grayish brown diatomaceous mud <i>smear slide 882 cm</i>	
			897 - 946 cm: dark grayish brown diatomaceous ooze	
		10YR3/2	927 - 940 cm: patches of 10YR3/2	
		5Y4/1	<i>smear slide 940 cm</i> 946 - 1078 cm: diatom-bearing mud, silty clay slightly layered, dark gray	

Fig. A.5-7b: Description of sediment core SO202-11-2 (piston core) 5.00 – 10.00 m.

Core ID: SO202-11-2 KOL
Recovery: 22.96 m

Latitude: 53°06.67'N
Longitude: 178°53.99'E
Southern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2703 m

Lithology	Struct.	Color	Description	Age
10		5Y4/1	946 - 1078 cm: diatom-bearing mud, silty clay slightly layered, dark gray	
		5Y4/2	1078 - 1106 cm: dark grayish brown diatomaceous ooze	
11		5Y4/1	1106 - 1130 cm: dark gray diatom-bearing mud, silty clay	
		5Y5/4	1130 - 1173 cm: diatomaceous ooze 5Y5/4 <i>smear slide 1157 cm</i>	
		5Y4/1	1173 - 1235 cm: dark gray diatom-bearing mud, silty clay	
12		7.5YR2/0 5Y5/4	1235 - 1237 cm: silty sand consisting of brownish volcanic glass shards (7.5YR2/0) <i>smear slide 1236 cm</i>	
			1237 - 1306 cm: diatomaceous ooze 5Y5/4	
		5Y4/1	1306 - 1337 cm: dark gray diatom-bearing mud	
13		5Y4/2	1337 - 1410 cm: dark grayish brown diatomaceous mud	
		5Y5/4	1410 - 1518 cm: diatomaceous ooze 5Y5/4	
14				
15				

Fig. A.5-7c: Description of sediment core SO202-11-2 (piston core) 10.00 – 15.00 m.

Core ID: SO202-11-2 KOL
Recovery: 22.96 m

Latitude: 53°06.67'N
Longitude: 178°53.99'E
Southern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2703 m

Lithology	Struct.	Color	Description	Age
15	5Y5/4 5Y4/2 & 7.5YR2/0	1410 - 1518 cm: diatomaceous ooze 5Y5/4 1518 - 1527 cm: diatomaceous ooze with ash layers, slightly layered (5Y4/2 & 7.5YR2/0)		
		1527 - 1604 cm: diatomaceous ooze 5Y5/4		<i>smear slide 1550 cm</i>
16	5Y5/4 5Y4/2	1604 - 1633 cm: dark grayish brown diatomaceous mud		
		1633 - 1656 cm: dark gray diatom-bearing mud, silty clay, slightly mottled		
	5Y4/1			<i>smear slide 1647 cm</i>
	5Y4/2 & 2.5Y3/2	1656 - 1690 cm: dark grayish brown diatomaceous mud with patches of volcanic ash (2.5Y3/2)		
	5Y4/1	1690 - 1717 cm: dark gray diatom-bearing mud		
	5Y4/2	1717 - 1773 cm: dark grayish brown diatomaceous mud		
				<i>smear slide 1755 cm</i>
17				
18	5Y5/4 & 5Y4/2	1773 - 1842 cm: slightly layered diatomaceous ooze (5Y5/4 & 5Y4/2)		
		1813 cm: silty sand consisting of colorless volcanic glass shards (0.5 cm thick)		<i>smear slide 1813 cm</i>
		1839 cm: sediment clot consisting of brownish volcanic glass shards		
	5Y4/1 & 5Y4/2	1842 - 1866 cm: diatom-bearing mud, slightly mottled in dark grayish brown and dark gray		
	5Y4/2	1866 - 1907 cm: dark grayish brown diatomaceous mud, slightly mottled		
19				
	5Y4/1	1907 - 1925 cm: dark gray diatom-bearing mud, silty clay		
	5Y4/2	1925 - 1957 cm: dark grayish brown diatomaceous mud		
	5Y4/1	1957 - 2159 cm: dark gray diatom-bearing mud, slightly mottled		
20				

Fig. A.5-7d: Description of sediment core SO202-11-2 (piston core) 15.00 – 20.00 m.

Core ID: SO202-11-2 KOL		Latitude: 53°06.67'N		Cruise: SO202 INOPEX	
Recovery: 22.96 m		Longitude: 178°53.99'E		Water Depth: 2703 m	
		Southern Bowers Ridge			
Lithology	Struct.	Color	Description	Age	
		5Y4/4	1957 - 2159 cm: dark gray diatom-bearing mud, slightly mottled		
			<i>smear slide 2070 cm</i>		
		5Y4/2	2159 - 2167 cm: dark grayish brown diatomaceous mud		
		5Y4/1	2167 - 2193 cm: dark gray diatom-bearing mud, silty clay		
		5Y4/2	2193 - 2213 cm: dark grayish brown diatomaceous mud		
		5Y4/1	2213 - 2240 cm: dark gray diatom-bearing mud, silty clay		
			2240 - 2296 cm: transition zone from dark gray diatom-bearing mud to dark grayish brown diatomaceous ooze		
		5Y4/2	<i>smear slide 2286 cm</i>		
23	Base of sediment core				
24					
25					

Fig. A.5-7e: Description of sediment core SO202-11-2 (piston core) 20.00 – 22.96 m.

Core ID: SO202-12-1 KAL
Recovery: 10.96 m

Latitude: 54° 03.040'N
Longitude: 179° 05.240'E
Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2115 m

Lithology	Struct.	Color	Description		Age
0	5Y4/2		0 - 40 cm:	Diatom ooze, olive gray	smear slide 12 cm
			40 - 80 cm:	Diatomaceous mud with some forams olive gray	
	5Y5/2		80 - 94 cm:	Calcareous diatomaceous mud with abundant forams and coccoliths, olive gray, layered to laminated	
			5Y5/2	5Y4/4	94 - 100 cm:
	5Y5/2	5Y8/2			100 - 113 cm:
			5Y4/4 & 5Y6/4 & 5Y3/1	112 - 113:	
	5Y5/1			113 - 114 cm:	Diatom-bearing foram sand with minor coccoliths and some volcanic glass shards
			5Y5/1		114 - 145 cm:
	5Y5/1				141 - 142:
			5Y5/1		145 - 468 cm:
5Y5/1		298 - 299 cm & 448 - 450 cm:			dark gray diatom-bearing mud containing some volcanic glass shards and sandy pumice
		5Y3/4		468 - 478 cm:	Diatom ooze with some forams and coccoliths, olive gray
5Y5/1				478 - 512 cm:	Diatom-bearing silty clay, gray
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Fig. A.5-8a: Description of sediment core SO202-12-1 (kasten core) 0.00 – 5.00 m

Core ID: SO202-12-1 KAL Recovery: 10.96 m			Latitude: 54° 03.040`N Longitude: 179° 05.240`E Bowers Ridge		Cruise: SO202 INOPEX Water Depth: 2115 m	
Lithology	Struct.	Color	Description			Age
		5Y5/1	478 - 512 cm: Diatom-bearing silty clay, gray			
		5Y4/2				
		5Y5/1	512 - 529 cm: Calcareous diatomaceous mud with forams and coccoliths, olive			
		5Y6/4	529 - 569 cm: Diatomaceous mud, slightly mottled, gray			
			530 - 532 cm: dark gray layer of diatomaceous mud with small clots of clay			
			532: Spot of ash (silt)			
		5Y5/1	569 - 660 cm: Calcareous diatomaceous mud with forams, slightly mottled, pale olive			
			660 - 676 cm: Diatom-bearing mud, gray			
			676 - 678 cm: Gravelly horizon containing pumice			
		5Y5/1 & 5Y5/4	678 - 1096 cm: Chaotic alternation of diatom ooze and diatom-bearing mud, probably slump deposit			
994 - 996 cm: lonestone, Ø 20 mm						
			smear slide 760 cm smear slide 793 cm			

Fig. A.5-8b: Description of sediment core SO202-12-1 (kasten core) 5.00 – 10.96 m.

Core ID: SO202-12-3 KOL
Recovery: 23.17 m

Latitude: 54°03.04'N
Longitude: 179°05.24'E
central Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2109 m

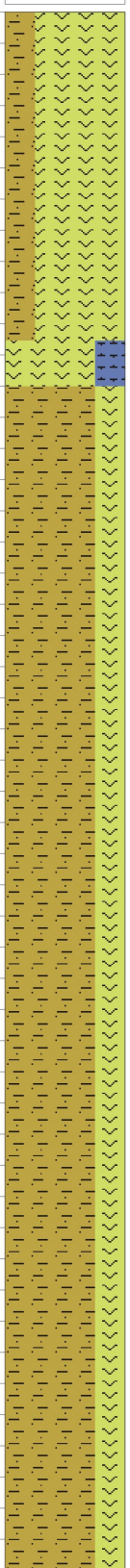
Lithology	Struct.	Color	Description	Age
		5Y4/2	0 - 106 cm: dark grayish brown diatomaceous mud <i>smear slide 61 cm</i>	
			106 - 120 cm: olive gray calcareous diatom ooze	
		5Y3/2	<i>smear slide 116 cm</i>	
		5Y4/2	120 - 139 cm: dark grayish brown foraminiferal-bearing diatomaceous mud	
		5Y4/4	<i>smear slide 131 cm</i>	
			139 - 188 cm: moderate olive brown calcareous diatom ooze <i>smear slide 163 cm</i>	
			179 - 189 cm: slightly layered	
			188 - 596 cm: dark grayish brown diatom-bearing silty clay	
		5Y4/2		
			<i>smear slide 359 cm</i>	
			436 - 440 cm: grayish brown diatomaceous mud	
		5Y4/3		
		5Y4/2		
		5Y4/3	451 - 455 cm: grayish brown diatomaceous mud	
		5Y4/2		

Fig. A.5-9a: Description of sediment core SO202-12-3 (piston core) 0.00 – 5.00 m.

Core ID: SO202-12-3 KOL
Recovery: 23.17 m

Latitude: 54°03.04'N
Longitude: 179°05.24'E
central Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 2109 m


Lithology	Struct.	Color	Description	Age
		5Y4/2	188 - 596 cm: dark grayish brown diatom-bearing silty clay	
			596 - 608 cm: grayish brown diatomaceous mud, slightly mottled	
		5Y4/2	608 - 650 cm: dark grayish brown diatom-bearing silty clay	
			650 - 727 cm: dark grayish brown calcareous diatomaceous mud <i>smear slide 679 cm</i>	
			727 - 758 cm: dark grayish brown diatom-bearing silty clay	
		7.5YR2/0	745 - 747 cm: silty sand containing, brownish volcanic glass shards (7.5YR2/0)	
			758 - 2317 cm: chaotic alternation of diatom ooze and diatom-bearing mud, probably slump deposit <i>smear slide 746 cm</i>	

Fig. A.5-9b: Description of sediment core SO202-12-3 (piston core) 5.00 – 23.17 m.

Fig. A.5-10a: Description of sediment core SO202-13-5 (trigger core) 0.00 – 0.27 m.

Core ID: SO202-13-5 KOL
Recovery: 6.58 m

Latitude: 54°58.72'N
Longitude: 177°57.42'E
northern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 1382 m

Lithology	Struct.	Color	Description	Age
0	5Y4/3		0 - 8 cm: Foraminiferal muddy diatom ooze	
	5Y4/2		0 - 8 cm: olive mud <i>smear slide 3 cm</i>	
1			8 - 216 cm: Diatomaceous mud to diatomaceous mud with some foraminifers	
			8 - 80 cm: olive gray mud with patches of olive and black sand grains <i>smear slide 35 cm</i>	
	5Y4/3		80 - 102 cm: olive mud	
	5Y4/2		102 - 120 cm: olive gray mud with dark sand grains	
	5Y3/2		120 - 136 cm: dark olive gray mud <i>smear slide 126 cm</i>	
	5Y3/2		136 - 155 cm: dark olive gray mud with black sand grains	
	5Y3/2		155 - 158 cm: dark olive gray mud	
	5Y3/2		158 - 172 cm: dark olive gray mud with black sand grains	
	5Y3/2		172 - 183 cm: dark olive gray mud	
	5Y3/2		183 - 216 cm: dark olive gray mud with black sand grains	
2	5Y3/2		216 - 230 cm: Mud <i>smear slide 225 cm</i>	
	5Y3/2		230 - 640 cm: Diatom-bearing mud to diatomaceous mud	
			230 - 276 cm: dark olive gray mud with black sand grains	
			276 - 280 cm: dark olive brown	
	2.5Y3/3		280 - 284 cm: dark olive gray mud with black sand grains	
	5Y3/2		284 - 287 cm: olive mud	
	5Y4/3		287 - 298 cm: very dark gray mud with black sand grains	
	5Y3/1		298 - 318 cm: dark olive gray mud with black sand grains	
	5Y3/2		318 - 322 cm: dark olive gray mud	
	5Y3/2		322 - 339 cm: dark olive gray mud with black sand grains	
3	5Y3/2		337 - 339 cm: dropstone, Ø 2 cm	
			339 - 368 cm: very dark gray mud with black sand grains <i>Smear slide 350 cm</i>	
	5Y3/1		368 - 450 cm: dark olive gray mud with black sand grains <i>smear slide 420 cm</i>	
	5Y3/2			
4			442 - 443 cm: dropstone	
			448 - 450 cm: dropstone	
	5Y4/2		450 - 451 cm: olive gray mud	
	5Y3/2		451 - 640 cm: dark olive gray mud with black sand grains	
5				

Fig. A.5-10b: Description of sediment core SO202-13-5 (piston core) 0.00 – 5.00 m.

Core ID: SO202-13-5 KOL
Recovery: 6.58 m

Latitude: 54°58.72'N
Longitude: 177°57.42'E
northern Bowers Ridge

Cruise: SO202 INOPEX
Water Depth: 1382 m

Lithology	Struct.	Color	Description	Age
5		5Y3/2	230 - 640 cm: Diatom-bearing mud to diatomaceous mud 451 - 640 cm: dark olive gray mud with black sand grains <i>smear slide 510 cm</i>	
6			635 cm: ash layer <i>smear slide 635 cm</i> 640 - 658 cm: Core disturbed!	
Base of sediment core				
7				
8				
9				
10				

Fig. A.5-10c: Description of sediment core SO202-13-5 (piston core) 5.00 – 6.58 m.

Core ID: SO202-14-3 KOL TC
Recovery: 0.67 m

Latitude: 56°47.19' N
Longitude: 178°49.45' E
central Aleutian Basin

Cruise: SO202 INOPEX
Water Depth: 3821 m

Lithology	Struct.	Color	Description	Age
0		10YR4/3 to 5YR5/2	0-21 cm: Diatom ooze Dark yellowish brownish to olive gray	<i>smear slide 5 cm</i>
		5YR3/2	21-45 cm: Diatomaceous mud Dark olive gray with patches of reddish gray (5YR5/2)	
		5YR5/2	45-67 cm: Mud-bearing diatom ooze Olive gray with a patch of dark yellowish brown (10YR4/3)	<i>smear slide 46 cm</i> <i>smear slide 63 cm</i>
Base of trigger core				
1				
2				
3				
4				
5				

Fig. A.5-11a: Description of sediment core SO202-14-3 (trigger core) 0.00 – 0.67 m.

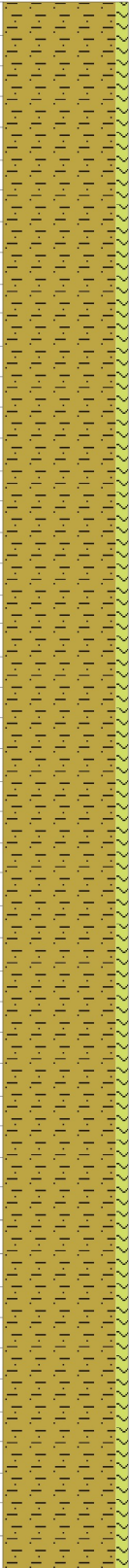





Core ID: SO202-14-3 KOL
Recovery: 17.97 m

Latitude: 56°47.19' N
Longitude: 178°49.45' E
central Aleutian Basin

Cruise: SO202 INOPEX
Water Depth: 3821 m

Lithology	Struct.	Color	Description	Age
		10YR3/4 & 5YR5/2 5Y4/2 5Y4/1	0-58 cm: Diatomaceous mud Brown and reddish gray 0-4 cm: Olive gray 4-21 cm: Dark gray <i>smear slide 15 cm</i>	
		5Y3/2	58-1797 cm: Diatom-bearing (silty) mud with some diatoms to (sandy) mud Dark olive gray <i>smear slide 60 cm</i> 58-213 cm:	
			<i>smear slide 120 cm</i>	
			Patches of dark gray (5Y4/1)	
			Patch of very dark gray (5Y3/1) <i>smear slide 175 cm</i>	
		5Y4/2	Olive gray 213-251 cm: <i>smear slide 225 cm</i>	
		5Y3/1 & 5Y4/1 5Y4/1	Fine lamination 251-265 cm: Very dark gray and dark gray 265-394 cm: Dark gray <i>smear slide 261.5 cm</i>	
			319-354 cm: Black streaks (5Y2.5/1)	
			354 cm: Porous layer (mud with some diatoms) <i>smear slide 354 cm</i>	
		5Y5/1	Gray 394-419 cm: Patch of very dark gray (5Y3/1) Olive gray <i>smear slide 412 cm</i> 412-419 cm: 419-460 cm:	
		5Y4/2		
		5Y4/1	Dark gray Black streaks 460-575 cm: 460-478 cm:	

Fig. A.5-11b: Description of sediment core SO202-14-3 (piston core) 0.00 – 5.00 m.

Core ID: SO202-14-3 KOL			Latitude: 56°47.19' N		Cruise: SO202 INOPEX	
Recovery: 17.97 m			Longitude: 178°49.45' E		Water Depth: 3821 m	
			central Aleutian Basin			
Lithology	Struct.	Color	Description			Age
		5Y4/1	58-1797 cm:	Diatom-bearing (silty) mud with some diatoms to (sandy) mud		
			460-575 cm:	Dark gray <i>smear slide 500 cm</i>		
			521-528 cm:	Black streaks		
				<i>smear slide 540 cm</i>		
		5Y4/2	575-585 cm:	Olive gray		
		5Y4/1	585-627 cm:	Dark gray		
		5Y4/1	585-587 cm:	Black streaks <i>smear slide 585 cm</i>		
			627-651 cm:	Cross-lamination (turbidite)		
				Dark to very dark gray		
		5Y3/1				<i>smear slide 645 cm</i>
		5Y4/1	651-765 cm:	Dark gray		
			653-671 cm:	Black streaks		
		5Y3/1	712-717 cm:	Cross-lamination (turbidite)		<i>smear slide 713 cm</i>
				Very dark gray		
			723-729 cm:	Black streaks		
			744-746 cm:	Turbidite? <i>smear slide 745.5 cm</i>		
		5Y3/2	765-794 cm:	Dark olive gray		
		5Y4/1	794-815 cm:	Dark gray		<i>smear slide 808 cm</i>
		5Y4/2	815-851 cm:	Olive gray		
		5Y3/1	851-875 cm:	Cross-lamination (turbidite)		<i>smear slide 868 cm</i>
				Very dark gray		
	5Y4/1	875-886 cm:	Dark gray with black streaks			
	5Y4/2	886-894 cm:	Olive gray			
	5Y3/2	894-914 cm:	Dark olive gray			
	5Y3/1	914-923 cm:	Cross-lamination (turbidite)		<i>smear slide 918 cm</i>	
	5Y4/1	923-994 cm:	Very dark gray			
		936-937 cm:	Dark gray with black streaks			
			Turbidite?			
		958-960 cm:	Turbidite? <i>smear slide 959 cm</i>			
	5Y5/2	994-1013 cm:	Olive gray			

Core ID: SO202-14-3 KOL Recovery: 17.97 m		Latitude: 56°47.19' N Longitude: 178°49.45' E central Aleutian Basin		Cruise: SO202 INOPEX Water Depth: 3821 m	
Lithology	Struct.	Color	Description		Age
10		5Y5/2	58-1797 cm:	Diatom-bearing (silty) mud with some diatoms to (sandy) mud	
			994-1013 cm:	Olive gray	
			1013-1038 cm:	Cross-lamination (turbidite)	
		5Y3/1		Dark to very dark gray	<i>smear slide 1035 cm</i>
		5Y4/2	1038-1080 cm:	Olive gray with black streaks	
		5Y4/1	1080-1099 cm:	Dark gray	<i>smear slide 1089 cm</i>
		5Y4/2	1099-1170 cm:	Olive gray	
11					
12					
13					
14					
15					

Fig. A.5-11d: Description of sediment core SO202-14-3 (piston core) 10.00 – 15.00 m.

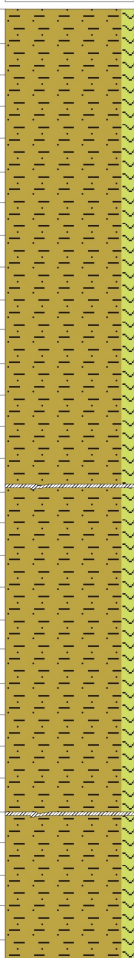
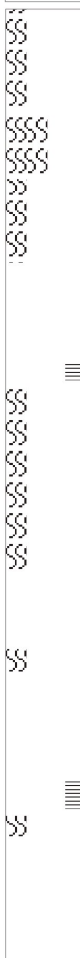
Core ID: SO202-14-3 KOL			Latitude: 56°47.19' N Longitude: 178°49.45' E central Aleutian Basin		Cruise: SO202 INOPEX Water Depth: 3821 m	
Recovery: 17.97 m						
Lithology	Struct.	Color	Description			Age
		5Y4/2	58-1797 cm:	Diatom-bearing (silty) mud with some diatoms to (sandy) mud		
			1500-1531 cm:	Olive gray	<i>smear slide 1520 cm</i>	
				Bioturbation in dark gray		
		5Y4/1 to 5Y4/2	1531-1579 cm:	Dark gray with black streaks		
				Bioturbation in olive gray		
		5Y4/1				<i>smear slide 1550 cm</i>
		2.5Y4/4	1579-1580 cm:	Olive brown		
		2.5Y4/2	1880-1592 cm:	Dark grayish brown		
		5Y4/1 to 5Y4/3	1592-1600 cm:	Dark gray		
			1600-1610 cm:	Olive brown to dark gray		
		5Y3/1	1610-1617 cm:	Cross-lamination (turbidite)		<i>smear slide 1615 cm</i>
		5Y4/1		Very dark gray		
			1617-1676 cm:	Dark gray		
			1648-1649 cm:	Sediment gap due to gas expansion		
		5Y4/2 to 5Y4/1	1676-1689 cm:	Olive gray to dark gray		
		5Y4/1	1689-1700 cm:	Dark gray with black streaks		
		5Y4/2 to 5Y4/1	1700-1731 cm:	Olive gray to dark gray		
			1714-1716 cm:	Black patch		<i>smear slide 1715 cm</i>
		5Y3/1	1731-1760 cm:	Very dark gray		
			1741-1751 cm:	Cross-lamination (turbidite)		
			1750-1751 cm:	Sediment gap due to gas expansion		
		2.5Y4/2	1760-1784 cm:	Dark grayish brown		
		5Y4/1	1784-1797 cm:	Dark gray		
			1795-1796 cm:	Turbidite?		<i>smear slide 1795 cm</i>
Base of sediment core						

Fig. A.5-11e: Description of sediment core SO202-14-3 (piston core) 15.00 – 17.97 m.

Core ID: SO202-15-5 KOL TC	Latitude: 59°30.76' N	Cruise: SO202 INOPEX
Recovery: 0.70 m	Longitude: 179°51.00' W	Water Depth: 3129 m
	Pervenets/Navarin Canyons	


Lithology	Struct.	Color	Description		Age
0		5Y4/2	0 - 70 cm:	Mud bearing diatom ooze	<i>smear slide 40 cm</i>
 Base of trigger core					
1					
2					
3					
4					
5					

Fig. A.5-12a: Description of sediment core SO202-15-5 (trigger core) 0.00 – 0.70 m.

Core ID: SO202-15-5 KOL
Recovery: 23.43 m

Latitude: 59°30.76' N
Longitude: 179°51.00' W
Pervenets/Navarin Canyons

Cruise: SO202 INOPEX
Water Depth: 3129 m

Lithology	Struct.	Color	Description	Age
		5Y4/2	0-366 cm: Diatom ooze with some mud to mud-bearing diatom ooze with some nannofossils Olive gray with patches of olive (5Y4/3) <i>smear slide 40 cm</i>	
		5Y3/2	103-106 cm: Dark olive gray Diatomaceous mud Coarser material, including volcanic glass <i>smear slide 106 cm</i> <i>smear slide 140 cm</i>	
			212 cm: Possible shell fragment	
			229 cm: Possible shell fragment <i>smear slide 240 cm</i>	
			Patches of olive (5Y4/4)	
			Patches of black (5Y2.5/1) <i>smear slide 340 cm</i>	
			366-367 cm: Sandy mud with traces of diatoms <i>smear slide 366 cm</i>	
			400 cm: Transition to diatom bearing mud Patches of black (5Y2.5/1)	
		5Y2.5/1	400, 411, 418 cm: Possible shell fragments	
		5Y2.5/1	433 cm: Diatomaceous mud 435 cm: Diatom-bearing mud with some foraminifers and nannofossils, black <i>smear slide 433 cm</i> <i>smear slide 435 cm</i> <i>smear slide 440 cm</i>	
		5Y2.5/1 to 5Y4/3	482-484 cm: Diatomaceous silty mud with some foraminifers and nannofossils (black) to foraminifera- and diatom-bearing mud (olive) <i>smear slide 482, 483 cm</i> <i>smear slide 484 cm</i>	
			498-498.2 cm: Foraminifera-bearing diatomaceous mud (black) to nannofossil-bearing diatomaceous mud (olive) <i>smear slide 498, 499 cm</i>	

Fig. A.5-12b: Description of sediment core SO202-15-5 (piston core) 0.00 – 5.00 m.

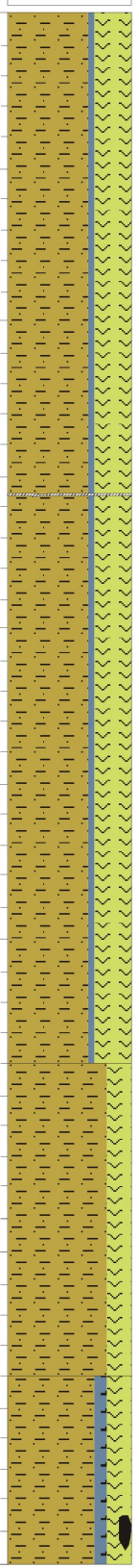
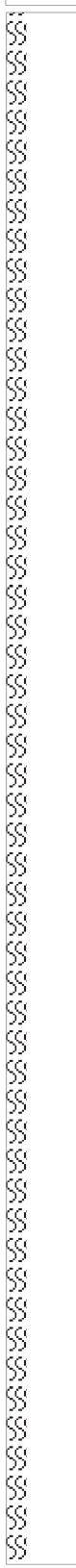
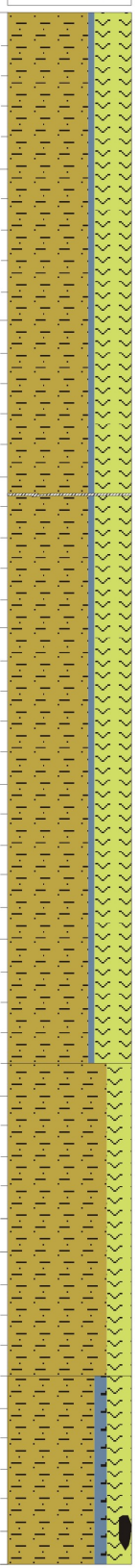
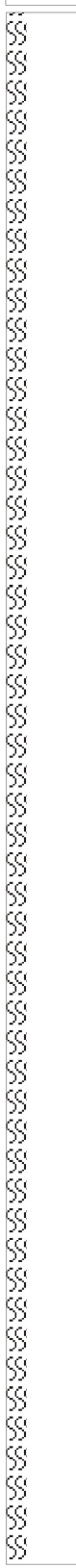
Core ID: SO202-15-5 KOL Recovery: 23.43 m		Latitude: 59°30.76' N Longitude: 179°51.00' W Pervenets/Navarin Canyons		Cruise: SO202 INOPEX Water Depth: 3129 m	
Lithology	Struct.	Color	Description		Age
		5Y3/2	500-840 cm:	Nannofossil-bearing diatomaceous mud with some foraminifers Dark olive gray <i>smear slide 540 cm</i>	
				Black stripes (5Y2.5/1) <i>smear slide 640 cm</i>	
			656-656.5 cm	Void	
			707-755 cm:	Olive patches (5Y4/3) and black stripes (5Y2.5/1) <i>smear slide 740 cm</i>	
			840 cm:	Diatom-bearing mud Black stripes (5Y2.5/1) <i>smear slide 840 cm</i>	
			940 cm:	Nannofossil- and diatom-bearing mud Black stripes (5Y2.5/1) <i>smear slide 940 cm</i>	
			975-977 cm:	Olive patches (5Y4/3)	
			985-993 cm:	Sandy mud Big black patches (5Y2.5/1) <i>smear slide 990 cm</i>	
10					

Fig. A.5-12c: Description of sediment core SO202-15-5 (piston core) 5.00 – 10.00 m.

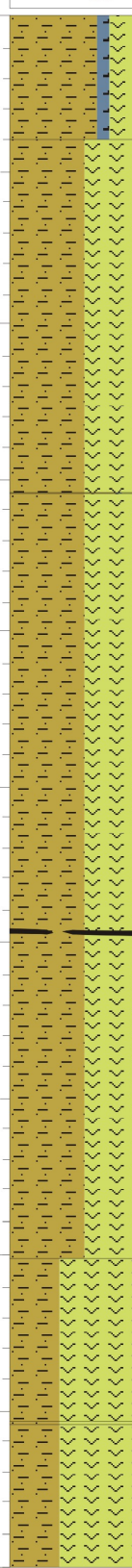
Core ID: SO202-15-5 KOL			Latitude: 59°30.76' N		Cruise: SO202 INOPEX	
Recovery: 23.43 m			Longitude: 179°51.00' W		Water Depth: 3129 m	
			Pervenets/Navarin Canyons			
Lithology	Struct.	Color	Description			Age
		5Y3/2				
			1040 cm:	Muddy diatom ooze Dark olive gray Black stripes (5Y2.5/1) and olive gray patches (5Y4/2)	smear slide 1040 cm	
		5Y2.5/1	1154.5-1155 cm:	Diatom-bearing sandy mud with some nannofossils Black	smear slide 1154.5 cm	
					smear slide 1240 cm	
			1296-1297 cm:	Black patch (5Y2.5/1)		
			1320 cm:	Olive patches (5Y4/3) Black stripes (5Y2.5/1)	smear slide 1325 cm smear slide 1340 cm	
		5Y3/2	1401-1943 cm:	Muddy diatom ooze Dark olive gray Black stripes (5Y2.5/1) and olive patches (5Y4/3)		
			1410-1413 cm:	Coarser material		
		5Y2.5/1	1453-1454 cm:	Muddy diatom ooze Darker layer	smear slide 1440 cm smear slide 1453 cm	

Fig. A.5-12d: Description of sediment core SO202-15-5 (piston core) 10.00 – 15.00 m.

Core ID: SO202-15-5 KOL Recovery: 23.43 m		Latitude: 59°30.76' N Longitude: 179°51.00' W Pervenets/Navarin Canyons		Cruise: SO202 INOPEX Water Depth: 3129 m	
Lithology	Struct.	Color	Description		Age
15		5Y3/2	1401-1943 cm:	Muddy diatomaceous ooze Dark olive gray Black stripes (5Y2.5/1) and olive patches (5Y4/3) until 1512 cm	
			1530 cm:	Crack in liner	
					<i>smear slide 1540 cm</i>
16					
17					
18		5Y4/3	1640, 1656, 1661 cm:	Gaps due to gas expansion	
			1679-1690 cm:	Olive patches	
					<i>smear slide 1685 cm</i>
19					
20		5Y3/1	1768-1769 cm:	Gap due to gas expansion	
			1806, 1814, 1828, 1878- 1881 cm:	Gaps	
			1831.5-1834, 1848-1849, 1855-1856.5, 1865-1866.5, 1893- 1893.5 cm:	Gaps	
					<i>smear slide 1840 cm</i>
		5Y3/1	1917-1918.5, 1929-1931.5, 1938-1940 cm:	Gaps	
			1943-2343 cm:	Diatomaceous silty mud Very dark gray Black stripes (5Y2.5/1) and olive patches (5Y4/3)	
					<i>smear slide 1943 cm</i>
			1945.5, 1965 cm:	Gaps	
			1966-1967 cm:	Gap	
			1985, 1987 cm:	Gaps	
			1990-1991 cm:	Gap with shell fragment	

Fig. A.5-12e: Description of sediment core SO202-15-5 (piston core) 15.00 – 20.00 m.

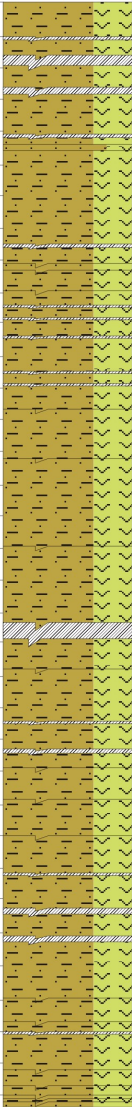

Core ID: SO202-15-5 KOL			Latitude: 59°30.76' N		Cruise: SO202 INOPEX	
Recovery: 23.43 m			Longitude: 179°51.00' W		Water Depth: 3129 m	
			Pervenets/Navarin Canyons			
Lithology	Struct.	Color	Description			Age
		5Y3/1	1943-2343 cm: Diatomaceous silty mud			
			Very dark gray			
			Black stripes (5Y2.5/1) and olive patches (5Y4/3)			
			2010-2011, 2016.5-2019, 2027-2028,			
		5Y4/3	2041-2042 cm: Gaps due to gas expansion			
			2044-2046 cm: Diatom-bearing sandy to silty mud, ash layer? smear slide 2045 cm			
			Olive patches			
			2075.5-2076.5 cm: Gap			
			2081, 2083.5, 2089.5 cm: Gaps			
			2094-2094.5, 2098.5-2099, 2104-2104.5, 2114-2115.5, 2118-2119.5 cm: Gaps			
			2017, 2142.5, 2169.5 cm: Gaps			
			smear slide 2140 cm			
			2193-2199 cm: Gap			
			2207.5 cm: Gaps			
			2224.5-2225, 2233-2234 cm: Gaps			
	2239, 2248, 2260 cm: Gaps smear slide 2240 cm					
	2271.5-2272, 2283-2285, 2291-2293 cm: Gaps					
	2309, 2317 cm: Gaps					
	2320-2320.5 cm: Gaps					
	2332, 2337, 2340-2343 cm: Gaps smear slide 2335 cm					
Base of sediment core						

Fig. A.5-12f: Description of sediment core SO202-15-5 (piston core) 20.00 – 23.43 m.

Core ID: SO202-17-1 KOL

Latitude: 60°07.39'N

Cruise: SO202 INOPEX

Recovery: 18.13 m

Longitude: 179°27.95'E

Water Depth: 1066 m

North-Bering Slope Pervenets/Navarin Canyons

Lithology	Struct.	Color	Description	Age
		5Y4/2	0 - 20 cm: diatom-bearing sandy mud <i>smear slide 7 cm</i>	
		5Y4/2 & 5Y4/1	20 - 99 cm: lamination, alteration of diatomaceous mud (dark grayish brown) and terrigenous mud (olive gray) with some sediment clasts consisting of sand <i>smear slide 46 cm</i> <i>smear slide 49 cm</i> <i>smear slide 55 cm</i>	
		5Y4/1	99 - 173 cm: olive gray silty clay <i>smear slide 149 cm</i>	
		5Y4/2 & 5Y4/1	173 - 203 cm: lamination, alteration of diatomaceous mud (dark grayish brown) and terrigenous mud (olive gray)	
		5Y4/2 & 5Y4/1	203 - 333 cm: lamination, alteration of dark grayish brown and olive gray	
		5Y4/1	333 - 390 cm: olive gray silty clay	
		5GY4/1	390 - 991 cm: dark greenish gray silty clay <i>smear slide 444 cm</i>	

Fig. A.5-13a: Description of sediment core SO202-17-1 (piston core) 0.00 – 5.00 m.

Fig. A.5-13b: Description of sediment core SO202-17-1 (piston core) 5.00 – 10.00 m.

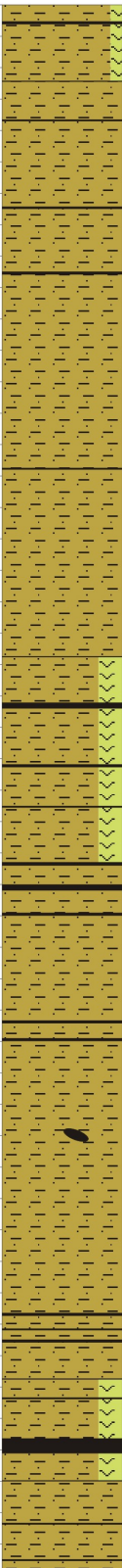
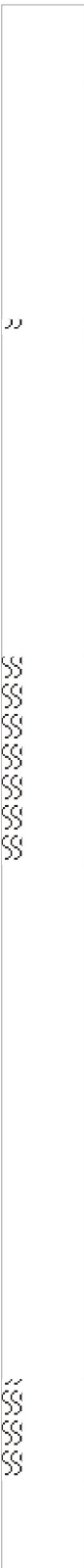
Core ID: SO202-17-1 KOL		Latitude: 60°07.39'N		Cruise: SO202 INOPEX	
Recovery: 18.13 m		Longitude: 179°27.95'E		Water Depth: 1066 m	
North-Bering Slope Pervenets/Navarin Canyons					
Lithology	Struct.	Color	Description		Age
		5Y5/2 & 5Y4/1	991 - 1024 cm:	alteration of light olive gray and dark gray	
			1005 - 1006 cm:	sediment gap due to gas expansion	
		5Y4/1	1024 - 1208 cm:	dark gray silty clay	
			1037 - 1037.5 cm:	sediment gap due to gas expansion	
			1064 - 1064.5 cm:	sediment gap due to gas expansion	
			1085 - 1086 cm:	sediment gap due to gas expansion	
		5Y5/2			
		5Y4/1	1100 - 1115 cm:	patches of light olive gray	
			1148 - 1148.5 cm:	sediment gap due to gas expansion	

Fig. A.5-13c: Description of sediment core SO202-17-1 (piston core) 10.00 – 15.00 m

Core ID: SO202-17-1 KOL Latitude: 60°07.39'N **Cruise: SO202 INOPEX**
Recovery: 18.13 m Longitude: 179°27.95'E **Water Depth: 1066 m**
North-Bering Slope Pervenets/Navarin Canyons

Lithology	Struct.	Color	Description	Age
15		5Y4/1	1470 - 1784 cm: dark gray silty clay 1501 - 1503 cm: sediment gap due to gas expansion <i>smear slide 1513 cm</i> 1516 - 1516.5 cm: sediment gap due to gas expansion 1522 - 1523 cm: sediment gap due to gas expansion 1527 - 1527.5 cm: sediment gap due to gas expansion 1530 - 1531 cm: sediment gap due to gas expansion 1535 - 1535.5 cm: sediment gap due to gas expansion 1542 - 1542.5 cm: sediment gap due to gas expansion 1552 - 1554 cm: sediment gap due to gas expansion 1558 - 1558.5 cm: sediment gap due to gas expansion 1580 - 1590 cm: moderately bioturbated 1602 - 1607 cm: sediment gap due to gas expansion 1608 - 1608.5 cm: sediment gap due to gas expansion 1625 - 1626 cm: sediment gap due to gas expansion 1635 - 1636 cm: sediment gap due to gas expansion 1645 - 1646 cm: sediment gap due to gas expansion 1648 - 1649 cm: sediment gap due to gas expansion 1693 - 1694 cm: sediment gap due to gas expansion 1704 - 1705 cm: sediment gap due to gas expansion 1716 - 1718 cm: sediment gap due to gas expansion <i>smear slide 1730 cm</i> 1745 - 1746 cm: sediment gap due to gas expansion 1749 - 1750 cm: sediment gap due to gas expansion 1751 - 1776 cm: layered to laminated (dark gray to light olive gray) 1753 - 1758 cm: sediment gap due to gas expansion	
16				
17				
18		5Y4/1 to 5Y5/2 5Y4/1 & 5Y4/2	1784 - 1813 cm: patches of diatomaceous mud in dark gray And dark grayish brown 1804 - 1805 cm: sediment gap due to gas expansion	
Base of sediment core				
19				
20				

Fig. A.5-13d: Description of sediment core SO202-17-1 (piston core) 15.00 – 18.13 m

Core ID: SO202-18-3 KOL
Recovery: 18.49 m

Latitude: 60°07.60' N
Longitude: 179°26.67' W
Navarin Canyon

Cruise: SO202 INOPEX
Water Depth: 1111 m

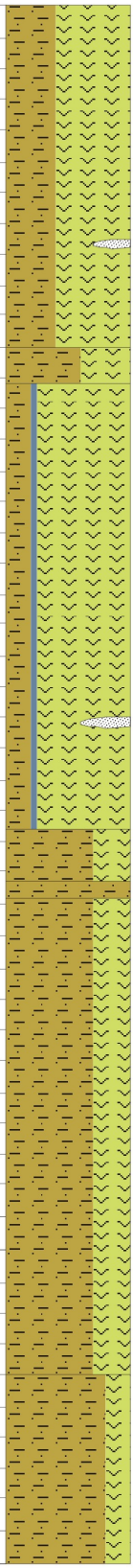
Lithology	Struct.	Color	Description	Age
		5Y4/2	0-110 cm: Muddy diatom ooze Olive gray <i>smear slide 20 cm</i>	
			76-78 cm: Diatom bearing sandy mud Olive (5Y2.5/2) <i>smear slide 78 cm</i>	
		5Y4/2	110-121 cm: Diatomaceous silty mud <i>smear slide 110 cm</i>	
		5Y4/1, 5Y4/2 & 5Y6/4	121-267 cm: Mud-bearing diatom ooze with some foraminifers Lamination of dark gray, olive gray and pale olive <i>smear slide 175 cm</i>	
		5Y2.5/1	230-234 cm: Diatomaceous silty to sandy mud Black <i>smear slide 233 cm</i>	
		5Y4/1	267-283 cm: Diatomaceous silty mud Dark gray <i>smear slide 275 cm</i>	
		5Y6/1	283-288 cm: Cementified clayey sand (possibly altered ash, cemented by clay and carbonate) <i>smear slide 284 cm</i>	
		5Y4/1	288-420 cm: Diatomaceous silty mud Dark gray <i>smear slide 400 cm</i>	
		5Y4/1 & 5Y4/2	420-440 cm: Coarse laminations of dark gray and olive gray	
		5Y4/1	440-747 cm: Diatom-bearing silty mud <i>smear slide 480 cm</i>	
		5Y4/2, 5Y4/1 & 5Y6/4	483-747 cm: Fine laminations of olive gray, dark gray and pale olive	

Fig. A.5-14a: Description of sediment core SO202-18-3 (piston core) 0.00 – 5.00 m.

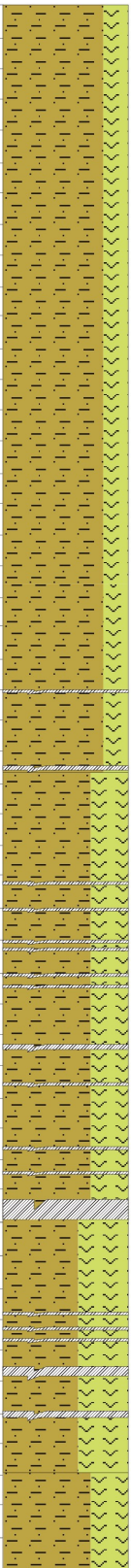

Core ID: SO202-18-3 KOL			Latitude: 60°07.60' N Longitude: 179°26.67' W Navarin Canyon		Cruise: SO202 INOPEX Water Depth: 1111 m	
Recovery: 18.49 m						
Lithology	Struct.	Color	Description			Age
		5Y4/2, 5Y4/1 & 5Y6/4	440-747 cm: Diatom-bearing silty mud 483-747 cm: Fine laminations of olive gray, dark gray and pale olive			
				smear slide 588 cm		
			687 cm: Diatom ooze with some mud	smear slide 687 cm		
			720-720.5, 744-745 cm: Gaps due to gas expansion			
		5Y4/1	747-970 cm: Diatomaceous silty mud Dark gray	smear slide 750 cm		
			782-782.5, 790-790.5 cm: Gaps 767-800 cm: Light olive green spots (10Y4/4, 1.5 mm in diameter)	smear slide 795 cm		
			800, 802, 812, 814, 833-834, 845, 866, 874, 883-889, 918, 922, 927, 935-938, 945.5-950.5 cm: Gaps (5 mm, unless otherwise specified)			
				smear slide 890 cm		
			970-1150 cm: Diatomaceous silty to sandy mud Dark gray	smear slide 970 cm		

Fig. A.5-14b: Description of sediment core SO202-18-3 (piston core) 5.00 – 10.00 m.

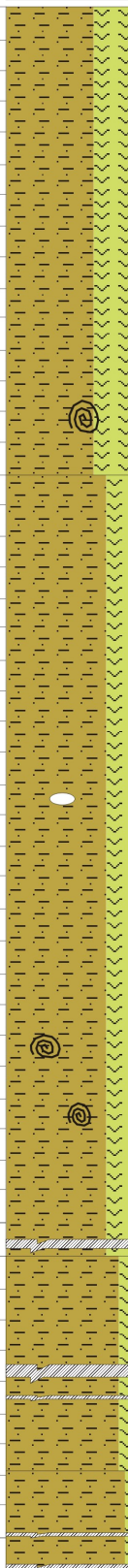
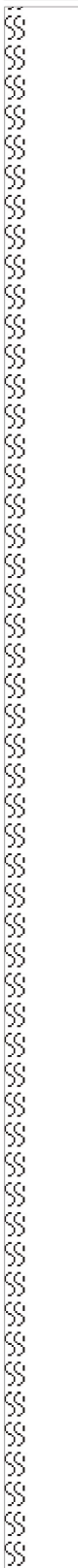
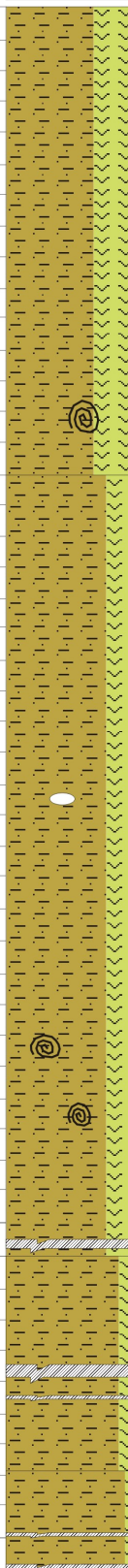
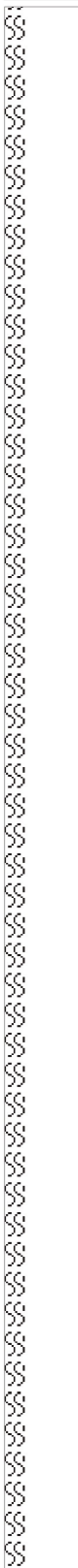
Core ID: SO202-18-3 KOL Recovery: 18.49 m			Latitude:60°07.60' N Longitude: 179°26.67' W Navarin Canyon		Cruise: SO202 INOPEX Water Depth: 1111 m	
Lithology	Struct.	Color	Description			Age
		5Y4/1	970-1150 cm:	Diatomaceous silty to sandy mud Dark gray		
						<i>smear slide 1050 cm</i>
			1130 cm:	Weathered bivalve		
		5Y4/1	1150-1400 cm:	Diatom-bearing silty mud Dark gray		<i>smear slide 1150 cm</i>
			1254 cm:	Hole		<i>smear slide 1250 cm</i>
						<i>smear slide 1300 cm</i>
			1338 cm:	Weathered bivalve		
			1355 cm:	Bivalve		
		5Y4/1	1395-1397.5 cm: 1400-1469 cm:	Gap due to gas expansion Diatom-bearing silty mud Dark gray		<i>smear slide 1400 cm</i>
			1434-1439, 1444-1445.5 cm:	Gaps		
		5Y4/1	1469-1570 cm:	Silty to sandy mud with some diatoms Dark gray	<i>smear slide 1469 cm</i>	
			1489-1489.5, 1498-1510 cm:	Gaps		

Fig. A.5-14c: Description of sediment core SO202-18-3 (piston core) 10.00 – 15.00 m.

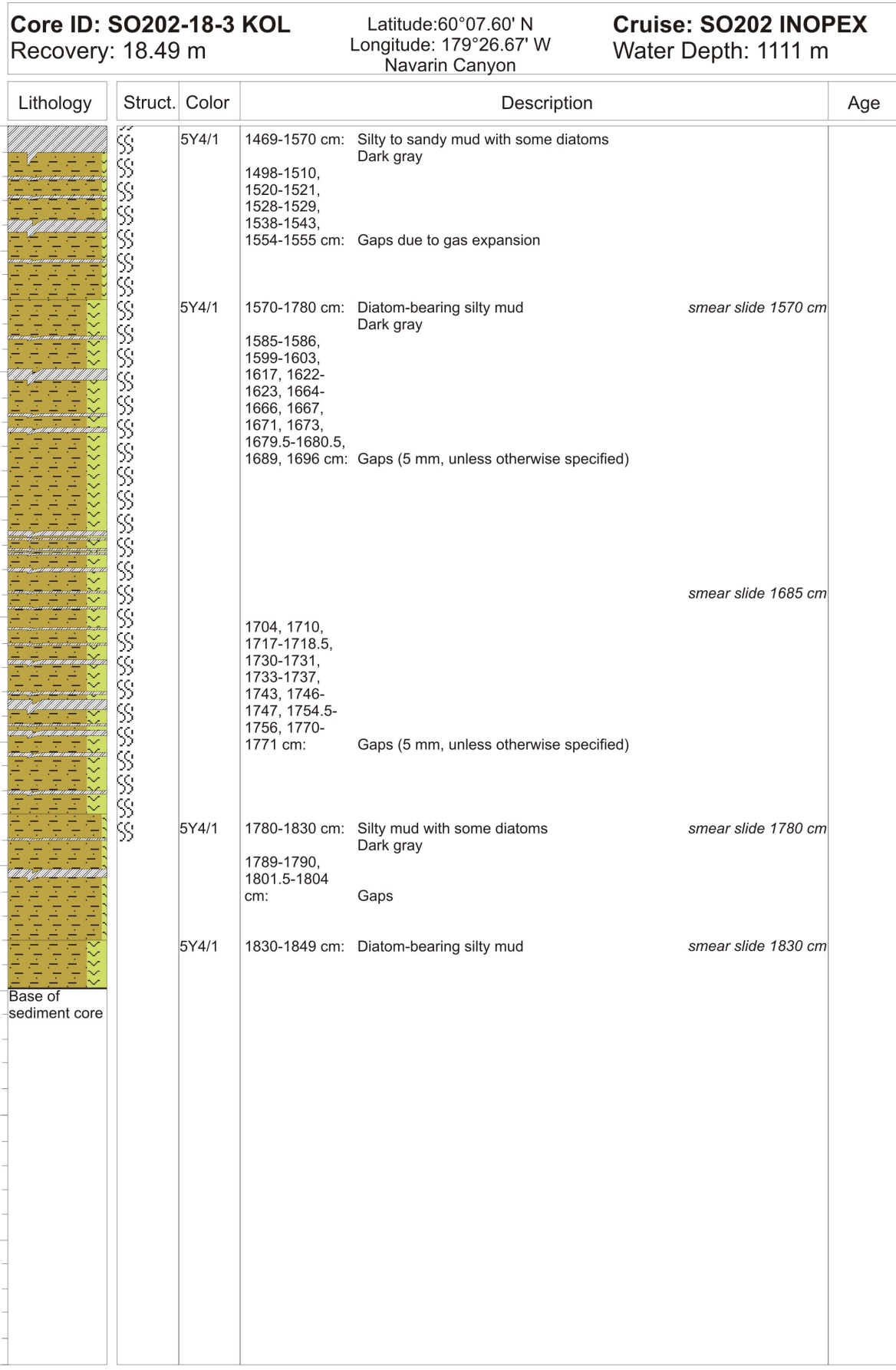


Fig. A.5-14d: Description of sediment core SO202-18-3 (piston core) 15.00 – 18.49 m.

<div> <div>Core ID: SO202-19-2 KOL TC</div> <div>Recovery: 0.35 m</div> </div> <div> <div>Latitude: 57°39.05'N</div> <div>Longitude: 175°40.69'W</div> <div>Bering Slope</div> </div> <div> <div>Cruise: SO202 INOPEX</div> <div>Water Depth: 1752 m</div> </div>				
Lithology	Struct.	Color	Description	Age
<div> <div>0</div> <div> </div> </div>	<div> <div>SS</div> <div>SS</div> <div>SS</div> <div>SS</div> </div>	<div>5Y4/2</div>	<div> <div>0 - 35 cm: Mud-bearing diatomaceous ooze</div> <div> <div>0 - 35 cm: olive gray with some black sand grains</div> <div><i>Smear slide 5 cm</i></div> </div> </div>	
<div> <div>1</div> <div> <div>2</div> <div>3</div> <div>4</div> <div>5</div> </div> </div>				

Fig. A.5-16a: Description of sediment core SO202-19-2 (trigger core) 0.00 – 0.35 m.

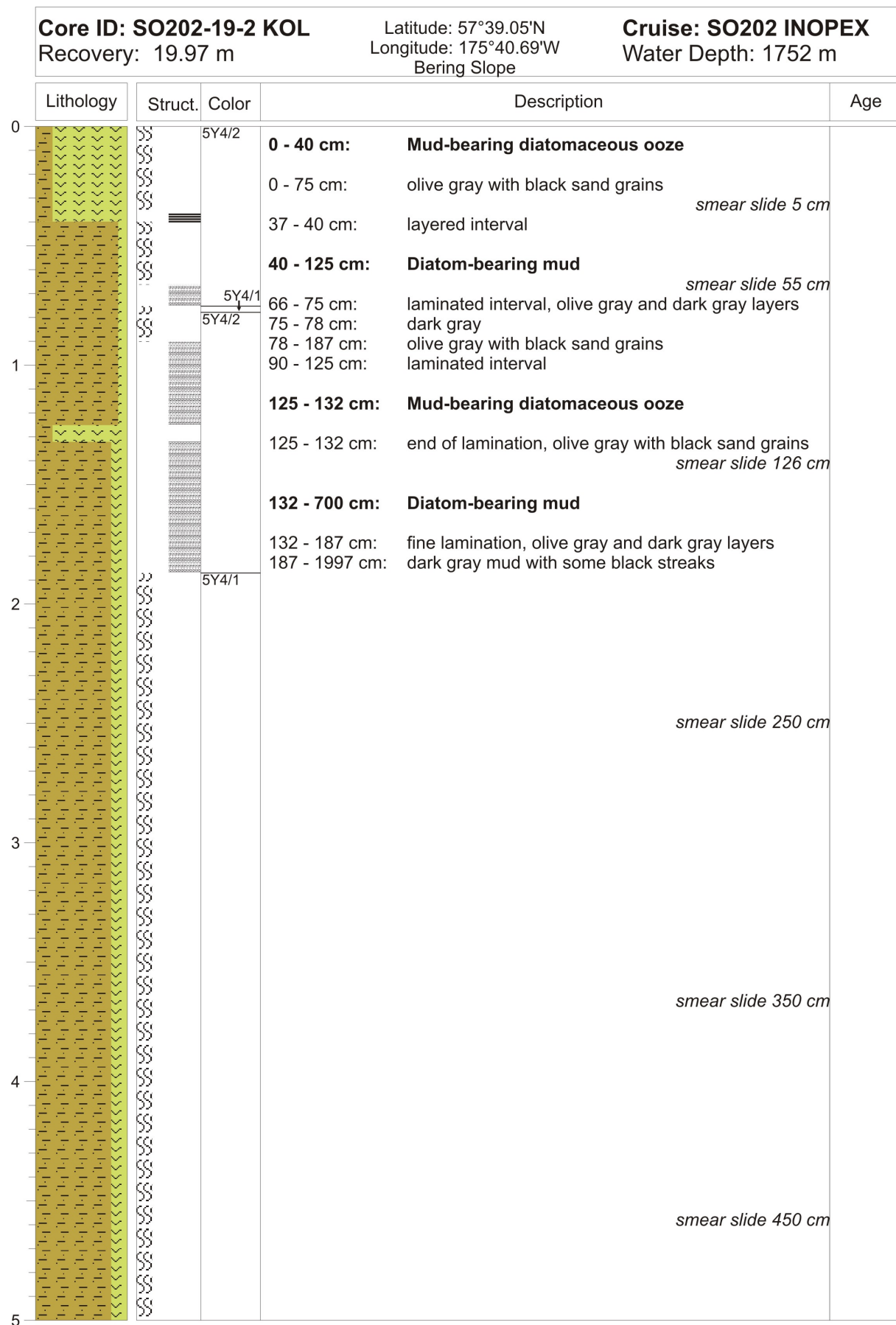


Fig. A.5-16b: Description of sediment core SO202-19-2 (piston core) 0.00 – 5.00 m.

Core ID: SO202-19-2 KOL
Recovery: 19.97 m

Latitude: 57°39.05'N
Longitude: 175°40.69'W
Bering Slope

Cruise: SO202 INOPEX
Water Depth: 1752 m

Lithology	Struct.	Color	Description	Age
		5Y4/1	132 - 700 cm: Diatom-bearing mud 187 - 1997 cm: dark gray mud with some black streaks <i>smear slide 550 cm</i>	
			<i>smear slide 650 cm</i>	
			700 - 800 cm: Muddy diatom ooze <i>smear slide 750 cm</i>	
			800- 1000 cm: Diatomaceous mud <i>smear slide 850 cm</i>	
			900 cm: bivalve shell <i>smear slide 950 cm</i>	

Fig. A.5-16c: Description of sediment core SO202-19-2 (piston core) 5.00 – 10.00 m.

Fig. A.5-16d: Description of sediment core SO202-19-2 (piston core) 10.00 – 15.00 m.

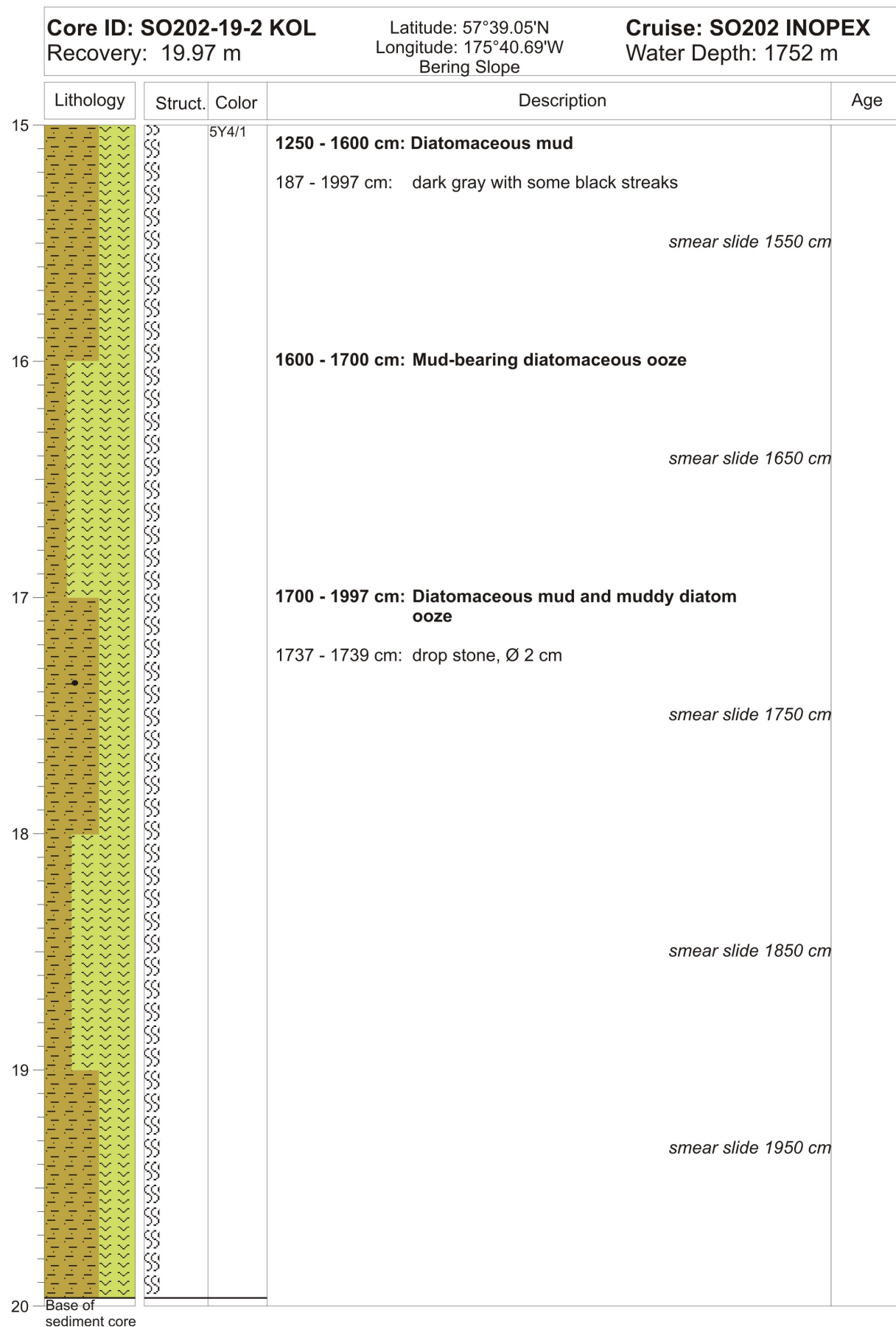


Fig. A.5-16e: Description of sediment core SO202-19-2 (piston core) 15.00 – 19.97 m.


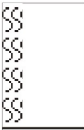
Core ID: SO202-20-1 KOL TC Recovery: 0.40 m			Latitude: 55°08.68'N Longitude: 171°04.95'W south east Aleutian Basin	Cruise: SO202 INOPEX Water Depth: 2984 m	
Lithology	Struct.	Color	Description		Age
<div>0</div>  <div>Base of trigger core</div> <div>1</div> <div>2</div> <div>3</div> <div>4</div> <div>5</div>		5Y4/2	0 - 40 cm: mud-bearing diatomaceous ooze olive gray, silty with few black grains		

Fig. A.5-17a: Description of sediment core SO202-20-1 (trigger core) 0.00 – 0.40 m.

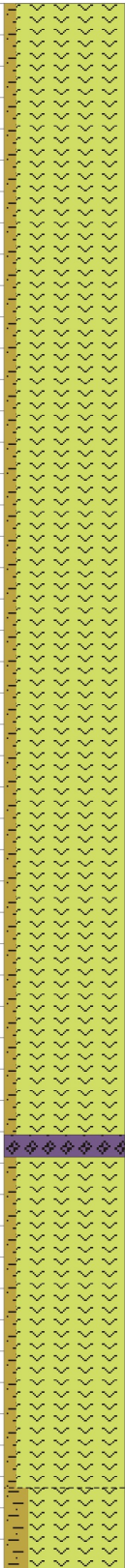
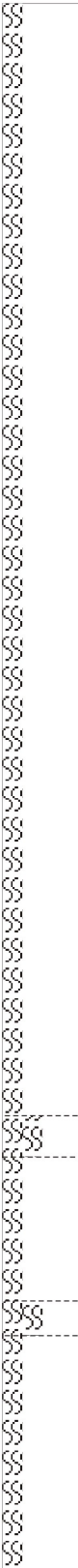
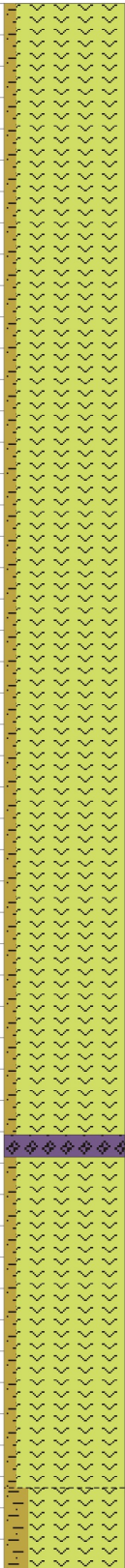
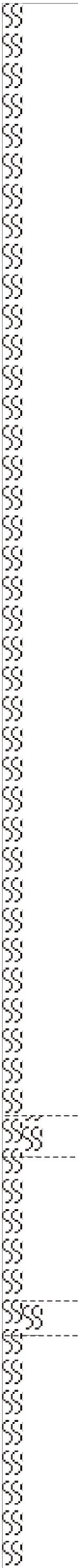
Core ID: SO202-20-1 KOL			Latitude: 55°08.68'N		Cruise: SO202 INOPEX	
Recovery: 22.67 m			Longitude: 171°04.95'W		Water Depth: 2984 m	
south east Aleutian Basin						
Lithology	Struct.	Color	Description			Age
		5Y4/2	0 - 483 cm: Diatomaceous ooze with some mud			
		0 - 483 cm: silty clay with some sandy black and white grains olive gray <i>smear slide 30 cm</i>				
		119 - 120 cm: reduction spot with centre in olive gray and reduction color grayish green <i>smear slide 140 cm</i>				
		143 cm: shell fragment black				
		180, 209, 244 & 256 cm: white spots, Ø 0.5-1 cm, no carbonate				
		<i>smear slide 230 cm</i>				
		<i>smear slide 300 cm</i>				
		312, 315 & 340 cm: shell fragments white				
		355 - 368 cm: stronger bioturbated than adjacent material 361 - 368 cm: silty ash with some diatoms black <i>smear slide 365 cm</i>				
		414 - 425 cm: silty clay, more sandy black grains than in adjacent material, stronger bioturbated <i>smear slide 420 cm</i> <i>smear slide 440 cm</i>				
476 - 483 cm: many sandy white grains, some carbonate						
483 - 1893 cm: Mud-bearing diatomaceous ooze to muddy diatomaceous ooze						
		5GY4/1	483 - 1893 cm: dark greenish gray			
		5G5/1	495 - 496 cm: reduction spot with reduction color greenish gray <i>Smear slide 500 cm</i>			

Fig. A.5-17b: Description of sediment core SO202-20-1 (piston core) 0.00 – 5.00 m.

Core ID: SO202-20-1 KOL
Recovery: 22.67 m

Latitude: 55°08.68'N
Longitude: 171°04.95'W
south east Aleutian Basin

Cruise: SO202 INOPEX
Water Depth: 2984 m

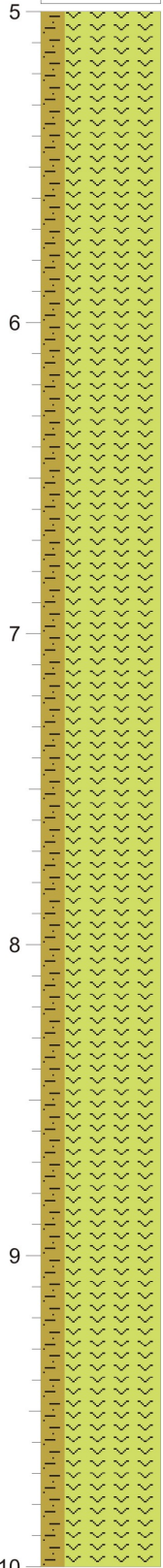
Lithology	Struct.	Color	Description	Age
		5GY4/1	483 - 1893 cm: Mud-bearing diatomaceous ooze to muddy diatomaceous ooze 483 - 1893 cm: dark greenish gray	
		5G4/1		
		5G4/1	570 - 572 cm: reduction spot with reduction color dark grayish green 573 - 575 cm: reduction spot with reduction color dark grayish green	
			<i>smear slide 580 cm</i>	
		5G4/1	661 - 662 cm: reduction spots with reduction color dark greenish gray 683 - 693 cm: spots of ash	
		5G4/2	747 - 748 cm: reduction spot with reduction color grayish green	
		5Y4/2	800 - 802 cm: sandy clay olive gray	
			<i>smear slide 801 cm</i>	
		5Y2.5/1	855 - 859 cm: black spots, silty clay	
		5Y2.5/1	878 - 886 cm: black spots, silty clay	
		5Y2.5/1	932 - 934 cm: black spot, silty clay	
			<i>smear slide 933 cm</i>	

Fig. A.5-17c: Description of sediment core SO202-20-1 (piston core) 5.00 – 10.00 m.

Core ID: SO202-20-1 KOL			Latitude: 55°08.68'N Longitude: 171°04.95'W south east Aleutian Basin		Cruise: SO202 INOPEX Water Depth: 2984 m	
Recovery: 22.67 m						
Lithology	Struct.	Color	Description			Age
		5GY4/1	483 - 1893 cm: Mud-bearing diatomaceous ooze to muddy diatomaceous ooze 483 - 1893 cm: dark greenish gray			
		2.5Y2/0	1063 - 1065 cm: diatom-bearing sandy ash black, transition zone back to dark greenish gray at the bottom <i>smear slide 1064 cm</i>			
			<i>smear slide 1140 cm</i>			
		10YR7/2	1186 - 1188 cm: spots of light gray sandy silt <i>smear slide 1187 cm</i>			
		5G4/1	1191 - 1210 cm: reduction area with reduction color dark greenish gray <i>smear slide 1198 cm</i>			
		5BG4/1	1215 - 1216 cm: reduction spot with reduction color dark greenish gray			
		7.5R2.5/0	1279 - 1282 cm: silty ash with some diatoms black <i>smear slide 1281 cm</i>			
		5GY4/1 & 5Y4/2	1307 - 1348 cm: bioturbation in large, olive gray spots, clayey <i>smear slide 1326 cm</i>			
		5GY4/1 & 5Y4/2	1392 - 1445 cm: bioturbation in large, olive gray spots			
		2.5Y2/0 & 5GY4/1	1437 - 1445 cm: big sandy black spot <i>smear slide 1438 cm</i> 1453 cm: dropstone, Ø 1 cm, black volcanic rock?			
15						

Fig. A.5-17d: Description of sediment core SO202-20-1 (piston core) 10.00 – 15.00 m.

Fig. A.5-17e: Description of sediment core SO202-20-1 (piston core) 15.00 – 20.00 m.

Fig. A.5-17f: Description of sediment core SO202-20-1 (piston core) 20.00 – 22.67 m.

Core ID: SO202-22-2 Recovery: 22.18 m		Latitude: 54°34.45' N Longitude: 168°48.66' W Umnak Plateau		Cruise: SO202 INOPEX Water Depth: 1482 m	
Lithology	Struct.	Color	Description		Age
		5Y4/1	245-1267 cm:	Silty clay with minor diatoms Slightly bioturbated Dark gray	<i>smear slide 506 cm</i>
		5GY6/1 5Y4/1	614-618 cm:	Altered volcanic ash cemented by carbonate and clay Semilithified sandy silt with colourless volcanic glass shards Greenish gray	<i>smear slide 616 cm</i>
		2.5YR2.5/1 5Y4/1	707-709 cm:	Silty sand consisting of colourless to brownish volcanic glass shards Black Bivalve	<i>smear slide 707 cm</i>
		2.5Y3/1 & 5Y4/1 5Y4/1	811-822 cm:	Silty sand with abundant volcanic glass shards Very dark gray & dark gray	<i>smear slide 819 cm</i>
			885 cm:	Dropstone, diameter 20 mm, subrounded	
			947-952 cm:	Silty clay with abundant volcanic glass shards	<i>smear slide 950 cm</i>

Fig. A.5-18b: Description of sediment core SO202-22-2 (piston core) 5.00 – 10.00 m.

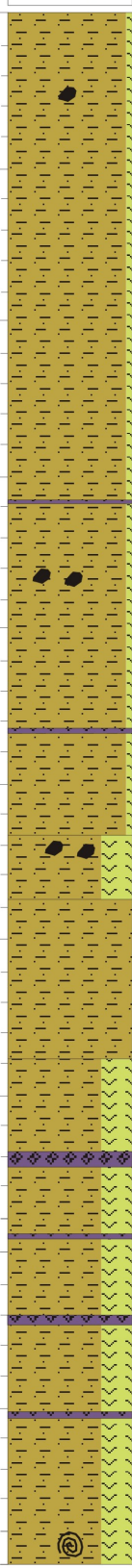
Core ID: SO202-22-2 Recovery: 22.18 m		Latitude: 54°34.45' N Longitude: 168°48.66' W Umanak Plateau		Cruise: SO202 INOPEX Water Depth: 1482 m	
Lithology	Struct.	Color	Description		Age
10 		5Y4/1	245-1267 cm: Silty clay with minor diatoms Slightly bioturbated Dark gray 1015-1017 cm: Lonestone (pumice)		
		7.5YR3/6 5Y4/1	1158-1159 cm: Silty sand consisting of colourless to brownish volcanic glass shards Dark brown 1180 cm: Two lonestones (diameter 1 cm)		
		2.5Y4/2 5Y4/1	1232-1233 cm: Silty sand consisting of colourless and some brownish volcanic glass shards Dark grayish brown <i>smear slide 1332 cm</i>		
			1267-1288 cm: Diatom-bearing mud 1270 cm: Two lonestones (diameter 0.5-1 cm) 1288-1339 cm: Silty clay		
			1339-1643 cm: Diatom-bearing mud (silty clay)		
		2.5Y6/2 5Y4/1	1369-1373 cm: Semilithified silt consisting of colourless volcanic glass shards, cemented by carbonate and authigenic clay minerals Light brownish gray 1394-1396 cm: Sandy mud with abundant volcanic glass shards		
		2.5Y2.5/1 5Y4/1	1420-1423 & 1451-1453 cm: Silty sand consisting of colourless to brownish volcanic glass shards Black		
		2.5Y2.5/1 5Y4/1			
			1494 cm: Bivalve remains		

Fig. A.5-18c: Description of sediment core SO202-22-2 (piston core) 10.00 – 15.00 m.

Fig. A.5-18d: Description of sediment core SO202-22-2 (piston core) 15.00 – 20.00 m.

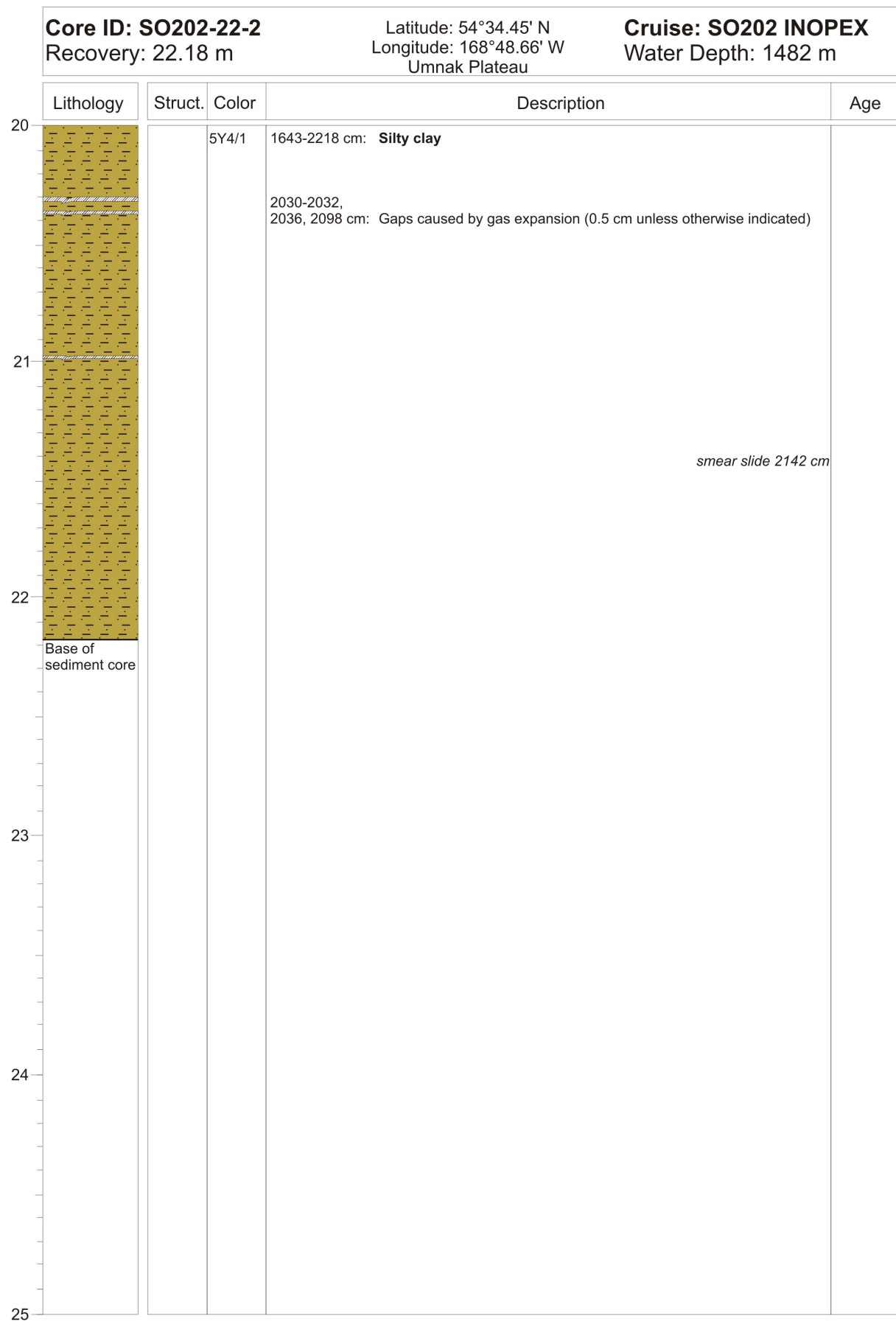


Fig. A.5-18e: Description of sediment core SO202-22-2 (piston core) 20.00 – 22.18 m.

Core ID: SO202-22-4 KAL
Recovery: 9.69 m

Latitude: 54° 34.410' N
Longitude: 168° 48.620' W
Umnak Plateau

Cruise: SO202 INOPEX
Water Depth: 1469 m

Lithology	Struct.	Color	Description	Age
0			0 - 188 cm: Diatomaceous mud to ooze, <i>smear slide 45 cm</i> with traces of forams and coccoliths, olive	
			21 cm: lonestones, Ø 5 - 10 mm, well rounded pumice, white	
			179 - 188 cm: laminated interval	
	5Y4/3		188 - 191 cm: Ash layer (sandy silt) <i>smear slide 190 cm</i> with colorless and some brownish volcanic glass shards very dark gray	
1			191 - 240 cm: Calcareous diatomaceous mud, <i>smear slide 238 cm</i> with forams and some coccoliths, colors ranging from pale olive to olive to gray to dark olive	
			211 cm : lonestone, pumice, ø 20 mm	
	7.5YR3/1		240 - 299 cm: Laminite with alternating <i>smear slide 261 cm</i> layers of diatom ooze and diatomaceous mud, colors ranging from pale olive to olive to gray to dark olive, some gray layers of volcanic ash	
2	5Y6/4 & 5Y4/3 & 5Y6/1 & 5Y3/1		235 - 253 cm: slightly laminated <i>smear slide 272 cm</i> 253 - 294 cm: clearly laminated <i>smear slide 282 cm</i> 272 - 273 cm: Layer of scoriaceous sand 274 - 275 cm: Layer of fine ash 284 - 285 cm: Layer of fine ash	
3	2.5YR2.5/0 5Y4/2		299 - 310 cm: Scoriaceous sand consisting of colorless to brownish volcanic glass shards, Black	
			310 - 319 cm: Diatomaceous mud, <i>smear slide 305 cm</i> olive gray	
			319 - 954 cm: Silty clay with minor to <i>smear slide 339 cm</i> some diatoms, dark gray strongly bioturbated	
4	5Y4/1		481 - 483 cm: spots of scoriaceous ash 492 cm: patch/ sediment clot <i>smear slide 492 cm</i> of well sorted sand consisting of colorless to brownish volcanic glass shards	
5				

Fig. A.5-19a: Description of sediment core SO202-22-4 (kasten core) 0.00 – 5.00 m.

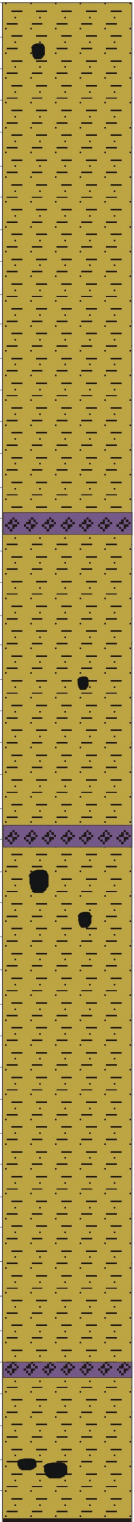
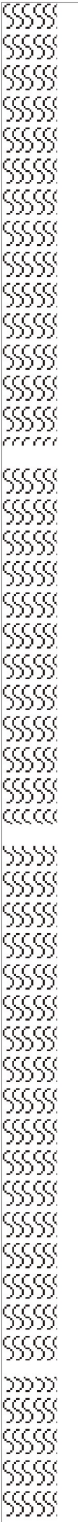
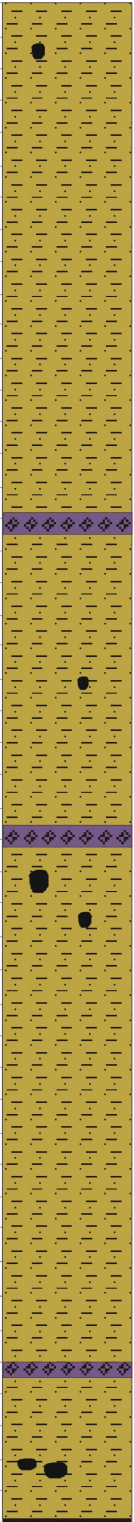
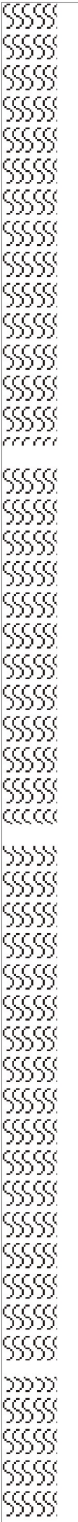
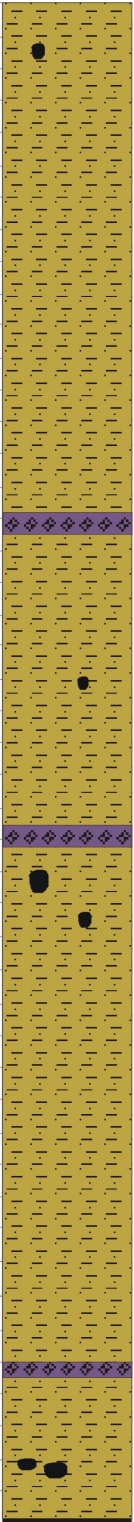
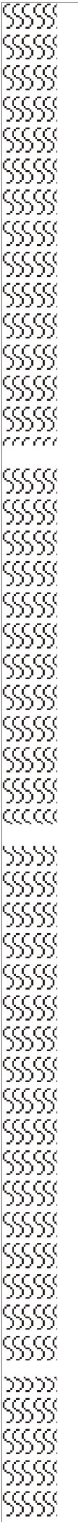
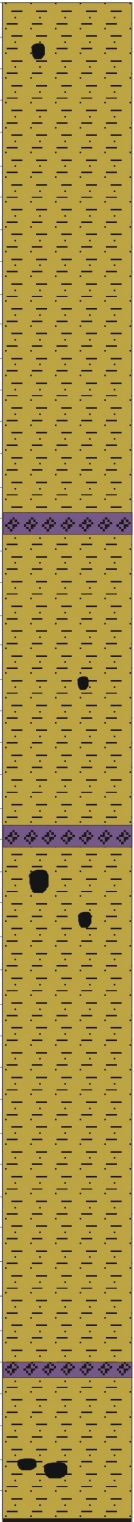
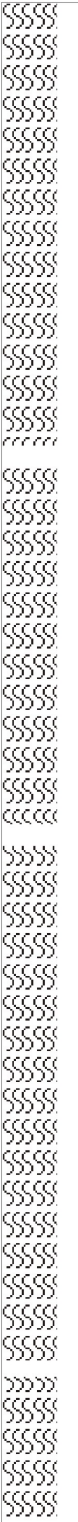
Core ID: SO202-22-4 KAL Recovery: 9.69 m			Latitude: 54° 34.410`N Longitude: 168° 48.620`W Umnak Plateau		Cruise: SO202 INOPEX Water Depth: 1469 m	
Lithology	Struct.	Color	Description			Age
		5Y4/1	515 cm: lonestone, ø 30 mm			
			659 - 662 cm: Semilithified sandy silt smear slide 662 cm with colorless volcanic glass shards and propably authigenic carbonate (possibly altered volcanic ash cemented by carbonate & clay)			
			714 cm: lonestone, ø 20 mm smear slide 719 cm			
			757 - 761 cm: Spots of scoriaceous ash (silt) consisting of colorless to brownish volcanic glass shards			
			774 cm: lonestone, ø 60 mm			
			786 cm: lonestone, ø 40 mm smear slide 918 cm			
			924 - 928 cm: Layer of normal grading smear slide 927 cm pumices (silty sand) consisting of colorless pieces of volcanic ash			
			952 - 954 cm: 2 lonestones, ø 10 - 20 mm			
		5GY6/1				
		5Y4/1				
		2.5YR2.5/0				
		5Y4/1				
		7.5YR6/2				
		5Y4/1				

Fig. A.5-19b: Description of sediment core SO202-22-4 (kasten core) 5.00 - 9.69 m.

Fig. A.5-20: Description of sediment core SO202-26-2 (piston core) 0.00 - 1.82 m.



Core ID: SO202-27-6 KAL			Latitude: 54° 17.770`N Longitude: 149° 36.010`W Patton Seamount		Cruise: SO202 INOPEX Water Depth: 2919 m	
Recovery: 2.91 m						
Lithology	Struct.	Color	Description			Age
		2.5Y5/4	0 - 12 cm:	Diatomaceous mud	smear slide 7 cm	
		2.5Y6/2		with some forams and coccoliths		
		2.5Y6/3		traces of radiolarians, some colorless volcanic glass shards light olive brown		
		5Y4/0 5Y5/3	12 - 37 cm:	Calcareous diatom ooze	smear slide 17 cm	
		2.5Y4/0		with forams and abundant coccoliths	33 cm	
		5Y5/3	25 - 37 cm:	moderately mottled, traces of Silicoflagellates, possibly authigenic carbonate grown on forams, olive		
		2.5Y4/0				
		7.5YR6/2 2.5Y4/0 2.5Y6/0 5Y5/3	37 - 118 cm:	Calcareous diatomaceous mud with abundant coccoliths and some radiolarians and forams to diatom-bearing mud with minor coccoliths and forams dark gray, slightly mottled		
		2.5Y4/0				
		2.5Y6/0 2.5Y4/0 2.5Y6/0	79 - 80 cm:	silty clay with some diatoms, Coccoliths and forams, olive		
		2.5Y4/0		smear slides: 57 cm, 64 cm, 105 cm		
		2.5Y6/0 5Y5/3 2.5Y4/0 2.5Y6/0	118 - 122 cm:	Layer of normal grading ash (sandy silt) consisting of colorless volcanic glass shards and some lithogenic grains, traces of diatoms, pinkish gray	smear slide 120 cm	
		5Y5/3	122 - 133 cm:	Diatomaceous mud with some forams and coccoliths = Type I		
		2.5Y4/0				
		2.5Y6/0 5Y5/3 2.5Y4/0	133 - 138 cm:	Transition from calcareous diatom ooze with forams and abundant coccoliths and authigenic carbonate, some radiolarians to calcareous diatom ooze with abundant coccoliths and some forams Transition from olive to gray = Type II		
		5Y5/3 2.5Y4/0	135 - 138:	Layer of fine ash		
			138 - 148 cm:	Type I		
			148 - 153 cm:	Calcareous diatom ooze with abundant coccoliths and some forams		
			153 - 157 cm:	Type I		
			157 - 168 cm:	Calcareous diatom ooze with abundant coccoliths and some forams	smear slide 162 cm	
			168 - 184 cm:	Type I	smear slide 177 cm	
			184 - 199 cm:	Type II	smear slide 195 cm	
			199 - 203 cm:	Type I	smear slide 210 cm	
			203 - 228 cm:	Type II, slightly to modertely mottled	215 cm	
			228 - 239 cm:	Type I	smear slide 234 cm	
			239 - 258 cm:	Type II, slightly mottled	smear slide 243 cm 247 cm	
			258 - 268 cm:	Type I		
			268 - 286 cm:	Type II, slightly mottled		
			286 - 291 cm:	Type I		

Fig. A.5-21: Description of sediment core SO202-27-6 (kasten core) 0.00 – 2.91 m.

Fig. A.5-22a: Description of sediment core SO202-28-2 (trigger core) 0.00 – 1.00 m.

Core ID: SO202-28-2 KOL
Recovery: 14.59 m

Latitude: 54°25.10'N
Longitude: 148°53.06'W
Patton Seamounts

Cruise: SO202 INOPEX
Water Depth: 3704 m

Lithology	Struct.	Color	Description	Age
0	2.5Y4/2	0 - 27 cm:	Diatomaceous ooze with some mud	
	2.5Y4/3	0 - 8 cm:	dark grayish brown mud	
	2.5Y4/2	8 - 13 cm:	grayish brown mud with few sandy, black grains	
	2.5Y5/3		<i>smear slide 10 cm</i>	
	2.5Y4/2	13 - 23 cm:	dark grayish brown mud with some sandy, black grains and carbonate	
	2.5Y5/3	23 - 27 cm:	light olive brown mud	
	2.5Y3/2	27 - 46 cm:	Muddy diatomaceous ooze with some foraminifers, radiolarians and silicoflagellates	
	5Y5/1	27 - 33 cm:	dark grayish brown mud with several sandy, black grains	
	5Y6/3		<i>smear slide 30 cm</i>	
	5Y4/1	33 - 39 cm:	light olive brown mud with white particles	
1	5B4/1	39 - 41 cm:	transition zone to color very dark grayish brown	
		41 - 46 cm:	very dark grayish brown	
		46 - 63 cm:	Diatomaceous ooze with some mud, radiolarians and silicoflagellates	
		46 - 58 cm:	spots of dark silty grains	
		58 - 63 cm:	transition zone to pale olive	
		63 - 79 cm:	Foraminifera-bearing diatomaceous ooze with some mud	
		63 - 79 cm:	pale olive mud	
		79 - 389 cm:	Muddy diatomaceous ooze with some radiolarians, foraminifers and silicoflagellates	
	5Y5/1	79 - 95 cm:	dark gray mud	
	2.5Y3/0	95 - 253 cm:	mud, some black spots	
2	5B4/1	136 cm, 156 cm & 158 cm:	big black reduction zones	
		122 cm, 139 cm:	dark greenish gray reduction spots	
		193 - 198 cm:	ash layer, top: gray, bottom: very dark gray, strong gradation from sandy silt to gravelly sand	
		215 cm:	dropstone, Ø 0.3 cm, black, volcanic?	
		216 cm:	dropstone, Ø 0.3 cm, black, volcanic?	
		235 cm:	dropstone, Ø 0.3 cm, black and white, metamorphic?	
		241 cm:	dropstone, Ø 1.0 cm, black, volcanic?	
	5Y5/1	243 cm:	dropstone, Ø 0.5 cm, black, volcanic?	
	5B4/1	253 - 260 cm:	transition zone to gray	
		260 - 263 cm:	gray ash, sandy silt	
3	5GY5/1	263 - 277 cm:	dark blueish gray	
	5B4/1	277 - 283 cm:	transition zone to greenish gray	
		290 - 294 cm:	transition zone to dark blueish gray	
		294 - 325 cm:	dark blueish gray, some black spots, big reduction zone with black color, strong bioturbation	
		306 - 307 cm:	black bioturbated layer, sandy silt	
	5GY5/1	325 - 333 cm:	transition zone to greenish gray	
	5Y5/4	333 - 343 cm:	greenish gray	
	5B4/1	337 - 339 cm:	spot in olive	
		347 - 389 cm:	dark blueish gray, some black and gray spots, grayish green reduction zones	
			<i>smear slide 374 cm</i>	
4		389 - 644 cm:	Foraminifera- and radiolaria- bearing diatomaceous ooze with some mud	
	5G4/2	389 - 393 cm:	transition zone to olive, black spots	
	5Y5/2	393 - 399 cm:	olive	
	5B4/1	399 - 412 cm:	dark blueish gray	
		412 - 426 cm:	transition zone to very dark grayish brown, more silty	
		426 - 432 cm:	silty ash with some diatoms, very dark grayish brown	
	2.5Y3/2	432 - 442 cm:	greenish gray mud with some carbonate	
	5GY5/1	442 - 465 cm:	pale olive mud	
	5Y6/3	449 - 465 cm:	greenish gray, spots of pale olive	
	5GY6/1	465 - 467 cm:	light gray, gray, black ash layer, silty sand	
5	5Y6/4	467 - 489 cm:	pale olive mud with some carbonate	
		489 - 504 cm:	transition zone to dark blueish gray	
	10YR7/1			
	5Y6/1			
	2.5Y2/0			
	5B4/1			

Fig. A.5-22b: Description of sediment core SO202-28-2 (piston core) 0.00 – 5.00 m.

Core ID: SO202-28-2 KOL
Recovery: 14.59 m

Latitude: 54°25.10'N
Longitude: 148°53.06'W
Patton Seamounts

Cruise: SO202 INOPEX
Water Depth: 3704 m

Lithology	Struct.	Color	Description	Age
5	5B4/1		389 - 644 cm: Foraminifera- and radiolaria- bearing diatomaceous ooze with some mud	
	5GY5/1		504 - 514 cm: dark blueish gray, few black grains	
			514 - 519 cm: transition zone to greenish gray, silty clay	
			519 - 573 cm: greenish gray, some dark blueish gray spots, reduction spot <i>smear slide 550 cm</i>	
			573 - 578 cm: transition zone to pale olive	
			578 - 591 cm: pale olive, muddy	
			582 cm: grayish green layer <i>smear slide 582 cm</i>	
	5Y6/3		591 - 594 cm: greenish gray, muddy	
	5GY5/1		594 - 596 cm: light olive gray (5Y6/2), muddy <i>smear slide 595 cm</i>	
	N4/1		596 - 599 cm: olive to dark gray (5Y5/3, N4/)	
6	5B4/1		599 - 604 cm: dark gray sandy silt, ash layer <i>smear slide 603 cm</i>	
	5GY6/1		604 - 612 cm: dark blueish gray, silty clay	
			612 - 618 cm: transition zone to greenish gray, some carbonate	
	5Y6/3		618 - 633 cm: greenish gray, muddy, reduction spot, some light gray spots	
	5B4/1		633 - 636 cm: transition zone to pale olive, muddy	
			636 - 644 cm: pale olive, carbonate <i>smear slide 640 cm</i>	
			644 - 989 cm: Radiolaria-bearing diatomaceous ooze with some mud and silicoflagellates	
			644 - 648 cm: transition zone to dark blueish gray	
			648 - 745 cm: dark blueish gray, muddy, some black spots	
			649 - 650 cm: dropstones stucked together, Ø 2.5 cm and Ø 1 cm, black, volcanic?	
7			659 - 660 cm: dropstone, Ø 1 cm, black, volcanic?	
			681 & 682 cm: grayish green layers, reduction zones <i>smear slide 682 cm</i>	
			700 cm: reduction spot, dark greenish gray, clay	
			745 - 762 cm: transition zone to pale olive, some black spots, muddy <i>smear slide 740 cm</i>	
	5Y6/4		762 - 835 cm: pale olive mud, some carbonate, some black spots <i>smear slide 770 cm</i>	
8	5GY4/1		835 - 848 cm: transition zone to dark greenish gray, no bioturbation	
			848 - 872 cm: dark greenish gray <i>smear slide 849 cm</i>	
			872 - 878 cm: transition zone to ash layer	
			878 - 880 cm: diatom-bearing sandy ash layer, very dark gray, gradated <i>smear slide 879 cm</i>	
	2.5Y3/0		880 - 883 cm: olive gray mud, no carbonate <i>smear slide 882 cm</i>	
	5Y5/2		883 - 904 cm: dark greenish gray silty clay, some black spots	
9	5BG4/1		904 - 911 cm: transition zone to olive	
	5Y5/6		911 - 989 cm: olive mud, some carbonate	
			929 - 934 cm: some gray layers <i>smear slide 944 cm</i>	
			970 - 971 cm: gray layer <i>smear slide 971 cm</i>	
			989 - 993 cm: transition zone to light olive gray	
			993 - 1061 cm: light olive gray mud, no carbonate, some lighter layers inbetween (pale olive, pale yellow), some darker layers (gray)	
			989 - 1187 cm: Radiolaria-bearing diatomaceous ooze with some mud and foraminifers	
	5Y6/2			
10				

Fig. A.5-22c: Description of sediment core SO202-28-2 (piston core) 5.00 – 10.00 m.

Core ID: SO202-28-2 KOL Recovery: 14.59 m		Latitude: 54°25.10'N Longitude: 148°53.06'W Patton Seamounts	Cruise: SO202 INOPEX Water Depth: 3704 m	
Lithology	Struct.	Color	Description	Age
		5Y6/2	989 - 1187 cm: Radiolaria-bearing diatomaceous ooze with some mud and foraminifers <i>smear slide 1006 cm</i>	
			1061 - 1074 cm: transition zone to dark blueish gray 1074 - 1180 cm: dark blueish gray clay, spots of sandy black ash <i>smear slide 1078 cm</i> <i>smear slide 1084 cm</i>	
		5B4/1 5B4/1		
			1120 cm: spots of black ash, silty clay 1135 - 1137 cm: black dropstone, Ø 2 cm, volcanic? 1160 - 1168 cm: spots of black ash, silty clay <i>smear slide 1168 cm</i>	
			1180 - 1187 cm: transition zone to olive	
		5Y5/4	1187 - 1457 cm: Radiolaria-bearing diatomaceous ooze with some mud 1187 - 1268 cm: olive mud <i>smear slide 1199 cm</i> <i>smear slide 1225 cm</i>	
			1238 - 1268 cm: stratification of light gray, pale yellow, light olive gray and olive gray layers 1268 - 1282 cm: dark blueish gray silty clay, some black spots, layering of dark greenish grey, greenish gray <i>smear slide 1276 cm</i>	
		5B4/1 5Y4/2	1282 - 1286 cm: transition zone to olive gray 1286 - 1342 cm: olive gray silty clay, strong bioturbation, many black spots <i>smear slide 1298 cm</i>	
		5B4/1	1342 - 1365 cm: dark blueish gray silty clay 1364 cm: dark greenish gray reduction layer 1365 - 1397 cm: dark greenish gray silty clay, some black spots	
		5GY4/1	1385 - 1386 cm: gray clay <i>smear slide 1385 cm</i>	
			1397 - 1407 cm: dark blueish gray silty clay, some black spots 1407 cm: grayish green reduction spot 1407 - 1419 cm: greenish gray mud with some black spots 1419 - 1423 cm: transition zone to blueish grey 1423 - 1432 cm: blueish gray silty clay 1432 - 1439 cm: gray, greenish gray, light gray, light olive gray ash layer, sandy silt <i>smear slide 1437 cm</i>	
		5B4/1 5GY5/1		
		5B5/1 5Y6/1	1439 - 1457 cm: dark blueish gray silty clay with some black spots	
Base of sediment core				
15				

Fig. A.5-22d: Description of sediment core SO202-28-2 (piston core) 10.00 – 14.59 m.

Core ID: SO202-29-4 KOL Recovery: 12.97 m		Latitude: 52° 01.670`N Longitude: 148° 53.700`W Gibson Seamount		Cruise: SO202 INOPEX Water Depth: 3965 m	
Lithology	Struct.	Color	Description	Age	
0		2.5Y6/4	0 - 59 cm: Diatom-bearing mud with traces of colorless volcanic glass shards 57 - 59 cm: sandy mud with some diatoms and possibly altered fragments of radiolarians		
		2.5Y5/4	59 - 92 cm: smear slides: 38 cm, 58 cm Transition from diatomaceous mud with minor coccoliths to diatom-bearing mud		
		2.5Y5/2 & 2.5Y3/0	92 - 111 cm: smear slides: 71 cm, 85 cm, Terrigenous mud with minor diatoms and some colorless volcanic glass shards		
		2.5Y7/2	105 - 111 cm: Silt, consisting of colorless volcanic glass shards and some lithogenic grains		
		2.5Y4/2	111 - 161 cm: smear slides: 96 cm, 108 cm Diatom-bearing calcareous mud with abundant coccoliths moderately mottled		
		2.5Y7/2	135 cm: lonestone, Ø 5 mm		
		2.5Y4/2	151 cm: lonestone, Ø 30 mm		
		2.5Y7/2	161 - 198 cm: Terrigenous mud with minor diatoms, slightly mottled		
		2.5Y5/2 & 2.5Y3/2	198 - 233 cm: smear slides: 167 cm, 195 cm Diatom ooze some carbonate, slightly mottled		
		2.5Y5/2	233 - 254 cm: smear slides: 202 cm, 219 cm Diatom-bearing mud slightly mottled		
1		2.5Y7/4 & 2.5Y6/4	254 - 293 cm: smear slide 244 cm Diatom ooze some carbonate, slightly mottled		
		5Y4/1	293 - 320 cm: smear slide 268 cm Transition from diatom-bearing mud with some colorless to brownish volcanic glass shards to terrigenous mud with some diatoms		
		5Y5/4	320 - 340 cm: smear slides: 298 cm, 317 cm Terrigenous mud with some diatoms black sediment clot, Ø 40 mm, consisting of colorless to dark brownish volcanic glass shards exhibiting beginning alteration, some lithogenic grains		
		5Y7/3	340 - 344 cm: smear slide 322 cm Mud to sandy mud consisting of colorless volcanic glass shards, altered volcanic material and some lithogenic grains		
		5Y3/1	344 - 356 cm: smear slide 344 cm Terrigenous mud with some some diatoms		
		5Y5/1	356 - 374 cm: smear slide 347 cm Calcareous diatom ooze		
		5Y4/1	374 - 427 cm: smear slide 369 cm Diatomaceous mud with some colorless volcanic glass shards		
		5Y6/2	398 cm: smear slide 394 cm lonestone, altered, Ø 15 mm 399 cm: 2 lonestones, Ø 5 mm		
		5Y5/1	427 - 469 cm: smear slides: 438 cm, 445 cm, 455 cm Terrigenous mud with abundant colorless volcanic glass shards, partly altered, some diatoms		
		2.5Y6/2	469 - 530 cm: smear slides: 477 cm, 489 cm, 498 cm, 522 cm Transition from diatomaceous mud to nannofossil - bearing mud with some diatoms, abundant coccoliths and some colorless volcanic glass shards		
2		2.5Y6/2	484 - 490 cm: Silt consisting of colorless volcanic glass shards and partly altered volcanic material		
		2.5Y5/2			
		2.5Y5/4 & 7.5Y7/2			
		10YR6/3			
		10YR6/2			
		2.5Y5/0			
3					
4					
5					

Fig. A.5-23a: Description of sediment core SO202-29-4 (piston core) 0.00 – 5.00 m.

Core ID: SO202-29-4 KOL
Recovery: 12.97 m

Latitude: 52° 01.670`N
Longitude: 148° 53.700`W
Gibson Seamount

Cruise: SO202 INOPEX
Water Depth: 3965 m

Lithology	Struct.	Color	Description	Age
5		10YR6/2	469 - 530 cm: Transition from diatomaceous mud to nannofossil - bearing mud with some diatoms, abundant coccoliths and some colorless volcanic glass shards	
		2.5Y5/0	smear slides: 477 cm, 489 cm, 498 cm, 522 cm	
		10YR6/3		
		5Y5/1	530 - 544 cm: Silty clay consisting of colorless volcanic glass shards and traces of lithogenic grains	
		2.5Y5/2		
		5Y5/1		
		5Y5/1& 2.5Y7/4	544 - 550 cm: Terrigenous mud with some diatoms	
		5Y5/1		
		5Y5/1& 2.5Y7/4	550 - 558 cm: Terrigenous sandy mud with some coccoliths and some diatoms, some colorless volcanic glass shards	
		5Y5/1		
6		5Y5/1	558 - 572 cm: Terrigenous mud with some colorless volcanic glass shards and traces of diatoms, some carbonate (possibly broken pieces of forams)	
		5Y5/1& 2.5Y7/4		
		5Y5/1		
		5Y5/1& 2.5Y7/4		
		5Y5/1	572 - 581 cm: Diatom ooze strongly mottled	
		5Y5/1	581 - 591 cm: Terrigenous mud with some colorless volcanic glass shards and traces of diatoms	
		5Y5/1& 2.5Y7/4		
		5Y5/1	591 - 606 cm: Calcareous diatom ooze strongly mottled	
		5Y5/1	603 cm: lonestone, Ø 15 mm	
		5Y5/1	606 - 650 cm: Transition from calcareous diatom ooze to terrigenous mud with some diatoms, slightly to moderately mottled	
7		5Y5/1	611 cm: lonestone, Ø 35 mm, well rounded	
		5Y5/1	650 - 680 cm: Diatom-bearing mud with traces of volcanic glass shards	
		2.5Y6/2	680 - 692 cm: Calcareous diatom ooze strongly mottled	
		2.5Y5/4	692 - 762 cm: Diatomaceous mud with some carbonate (poss. broken pieces of forams) slightly mottled	
		2.5Y2/0	762 cm: lonestone, Ø 20 mm, well rounded	
		2.5Y5/4 & 2.5Y7/2	762 - 796 cm: Diatomaceous mud with some radiolarians and traces of brownish volcanic glass shards, clotted clay	
		2.5Y5/4 & 2.5Y7/2	777 cm: lonestone, Ø 10 mm	
		2.5Y5/4 & 2.5Y7/2	796 - 813 cm: Diatom ooze slightly mottled	
		2.5Y5/4	813 - 929 cm: Transition from terrigenous mud with some diatoms to diatom-bearing calcareous ooze to calcareous diatomaceous mud with traces of coccoliths and poss. broken pieces of forams	
		5Y5/1	smear slides: 854 cm, 881 cm, 912 cm, 926 cm	
8		5Y5/1	929 - 1040 cm: Terrigenous mud with minor diatoms	
		2.5Y2/0	954 - 958 cm: graded layer of coarse to fine sand consisting of lithogenic grains and some colorless volcanic glass shards	
		5Y5/1	965 cm & 967 cm: lonestones, Ø 5 mm	
		5Y5/1	985 - 989 cm: sediment clot, gravelly sand consisting of volcanic material	
		5Y5/1	smear slides: 956 cm, 962 cm	
		5Y5/1		
		5Y5/1		
		5Y5/1		
		5Y5/1		
		5Y5/1		
9		5Y5/1		
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		5Y5/1		
		5Y5/1		
		5Y5/1		

Fig. A.5-23b: Description of sediment core SO202-29-4 (piston core) 5.00 – 10.00 m.

Core ID: SO202-29-4 KOL
Recovery: 12.97 m

Latitude: 52° 01.670`N
Longitude: 148° 53.700`W
Gibson Seamount

Cruise: SO202 INOPEX
Water Depth: 3965 m

Lithology	Struct.	Color	Description	Age
10			1022 - 1040 cm: Transition from grayish brown to gray	
		5Y5/1	1040 - 1071 cm: Calcareous diatom ooze, moderately mottled 1045 & 1065 cm: lonestones, Ø 15 & 30 mm	<i>smear slide 1047 cm</i>
		2.5Y5/2		
		2.5Y5/2 & 2.5Y7/0 & 5Y5/1	1071 - 1129 cm: Transition from calcareous diatomaceous mud to diatomaceous mud 1111 - 1115 cm: sediment clot consisting of gravelly sand, black volcanic material	<i>smear slide 1087 cm 1119 cm</i>
		2.5Y5/2	1129 - 1175 cm: Transition from diatomaceous mud to diatom-bearing mud with some carbonate 1147 cm: lonestone, Ø 50 mm	<i>smear slide 1154 cm</i>
11		2.5Y5/4	1175 - 1295 cm: Diatomaceous mud, slightly mottled 1256 cm: lonestone, Ø 20 mm 1284 cm: lonestone, Ø 10 mm, black 1286 - 1290 cm: calcareous diatom - bearing mud 1292 - 1293 cm: diatomaceous calcareous ooze with abundant coccoliths and some forams	<i>smear slide 1196 cm 1289 cm 1293 cm</i>
		2.5Y5/4		
		5Y5/1		
12				
		5Y5/1		
		2.5Y7/2 & 2.5Y8/0		
13			Base of sediment core	
14				
15				

Fig. A.5-23c: Description of sediment core SO202-29-4 (piston core) 10.00 – 12.97 m.

Core ID: SO202-33-4 KOL Recovery: 22.70 m			Latitude: 45°04.97' N Longitude: 174°08.39' W Chinook Trough		Cruise: SO202 INOPEX Water Depth: 6159 m	
Lithology	Struct.	Color	Description			Age
		10YR4/3	0-23 cm:	Diatomaceous mud Brown, very slightly mottled		
		10YR3/3	23-41 cm:	Muddy diatom ooze Dark yellowish brown, slightly mottled Few light patches	<i>smear slide 33 cm</i>	
		10YR4/4	41-224 cm: 41-105 cm:	Diatomaceous mud Brown, slightly mottled Small light patches		
		10YR4/3				
		10YR4/4 10YR4/3	130-137 cm: 137-194 cm:	Dark yellowish brown, moderately mottled Brown, slightly mottled	<i>smear slide 134 cm</i>	
		10YR5/4	194-224 cm:	Yellowish brown, moderately mottled Light patches		
		10YR4/4	224-633 cm: 224-309 cm:	Diatom-bearing mud Dark yellowish brown, slightly mottled Few small light patches		
			248 cm:	Light patch (Light yellowish brown, 10YR6/4) of mud-bearing diatom ooze	<i>smear slide 248 cm</i>	
		10YR5/4	309-349 cm:	Yellowish brown, moderately mottled Dark gray patches	<i>smear slide 325 cm</i>	
		10YR4/4	349-377 cm:	Dark yellowish brown, slightly mottled Light patches		
		10YR5/4	377-398 cm:	Yellowish brown, slightly mottled		
		10YR4/4	398-451 cm:	Dark yellowish brown, strongly mottled Many light patches	<i>smear slide 405 cm</i>	
		10YR5/4	451-495 cm:	Yellowish brown, slightly mottled		
		10YR4/3	495-580 cm:	Brown, very slightly mottled		

Fig. A.5-24b: Description of sediment core SO202-33-4 (piston core) 0.00 – 5.00 m.

Core ID: SO202-33-4 KOL Recovery: 22.70 m			Latitude: 45°04.97' N Longitude: 174°08.39' W Chinook Trough		Cruise: SO202 INOPEX Water Depth: 6159 m	
Lithology	Struct.	Color	Description			Age
5		10YR4/3	224-633 cm: 495-580 cm: 502 cm:	Diatom-bearing mud Brown, very slightly mottled Few light patches (Very pale brown, 10YR7/4) of diatomaceous mud <i>smear slide 502 cm</i>		
		10YR5/4	580-606 cm:	Yellowish brown, moderately mottled Dark brownish patches		
6		10YR4/3	606-633 cm:	Brown, moderately mottled Big light patches (very pale brown, 10YR7/4)		
		10YR5/4	633-875 cm: 633-663 cm:	Muddy diatom ooze Yellowish brown, strongly mottled Light and brown (10YR4/3) <i>smear slide 660 cm</i>		
7		10YR4/3	663-678 cm:	Brown, slightly mottled		
		10YR6/4	678-682 cm:	Light yellowish brown, slightly mottled		
8		10YR5/3	682-689 cm:	Dark gray structure		
		10YR4/3	689-718 cm:	Brown, moderately mottled Light patches		
9		10YR5/4	718-745 cm:	Yellowish brown, moderately mottled Light patches		
		10YR6/4	745-746 cm:	Light yellowish brown, slightly mottled		
10		10YR4/3	746-763 cm: 757 cm:	Brown, strongly mottled Very dark grayish brown (10YR3/2) patch		
		10YR4/4	763-797 cm:	Dark yellowish brown, slightly mottled Light patches <i>smear slide 772 cm</i>		
11		10YR5/3	797-806 cm:	Brown, moderately mottled		
		10YR4/3	806-835 cm: 809 cm:	Brown, moderately mottled Very pale brown (10YR7/4) patch <i>smear slide 833 cm</i>		
12		10YR5/4	835-875 cm:	Yellowish brown, moderately mottled		
		10YR4/3	875-1028 cm: 875-950 cm:	Mud-bearing diatom ooze Brown, slightly mottled Few light patches <i>smear slide 930 cm</i>		
13		10YR5/4	950-1028 cm:	Yellowish brown, slightly mottled Few light and brown patches		

Fig. A.5-24c: Description of sediment core SO202-33-4 (piston core) 5.00 – 10.00 m.

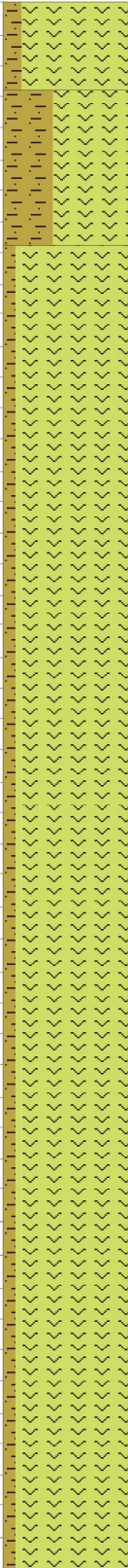


















Core ID: SO202-33-4 KOL			Latitude: 45°04.97' N Longitude: 174°08.39' W Chinook Trough		Cruise: SO202 INOPEX Water Depth: 6159 m	
Recovery: 22.70 m						
Lithology	Struct.	Color	Description			Age
		10YR5/4	875-1028 cm: Mud-bearing diatom ooze 950-1028 cm: Yellowish brown, slightly mottled Few light and brown patches			
		10YR5/2	1028-1078 cm: Muddy diatom ooze 1028-1064 cm: Grayish brown, moderately mottled 1056 cm: Pale brown (10YR6/3) patch	<i>smear slide 1030 cm</i>		
		10YR5/4	1064-1078 cm: Yellowish brown, slightly mottled			
		10YR4/2	1078-1552 cm: Mud-bearing diatom ooze with some radiolarians 1078-1096 cm: Dark grayish brown, moderately mottled	<i>smear slide 1094 cm</i>		
		10YR3/4	1096-1138 cm: Dark yellowish brown, slightly mottled 1118, 1125 cm: Very pale brown (10YR7/3) patches			
		10YR5/3	1138-1157 cm: Brown, moderately mottled			
		10YR3/4	1157-1198 cm: Dark yellowish brown, slightly mottled			
		10YR5/4	1192 cm: Very pale brown (10YR7/4) patch 1198-1219 cm: Yellowish brown, slightly mottled			
		10YR4/3	1219-1253 cm: Brown, moderately mottled Light structures	<i>smear slide 1250 cm</i>		
		10YR4/2	1253-1300 cm: Dark grayish brown, strongly mottled			
		10YR4/3	1300-1320 cm: Brown, moderately mottled 1309 cm: Very pale brown (10YR7/4) patch			
		10YR4/2	1320-1375 cm: Dark grayish brown, moderately mottled 1356 cm: Very pale brown (10YR8/3) patches	<i>smear slide 1360 cm</i>		
		10YR4/3	1375-1397 cm: Brown, moderately mottled Light patches and gray streaks			
		10YR5/3	1397-1409 cm: Brown, moderately mottled			
		10YR4/2	1409-1422 cm: Dark grayish brown, slightly mottled			
		10YR6/4	1422-1457 cm: Light yellowish brown, strongly mottled			
		10YR4/3	1457-1478 cm: Brown, moderately mottled Dark grayish streaks	<i>smear slide 1463 cm</i>		
		10YR4/2	1478-1500 cm: Dark grayish brown, strongly mottled			

Fig. A.5-24d: Description of sediment core SO202-33-4 (piston core) 10.00 – 15.00 m.

Core ID: SO202-33-4 KOL			Latitude: 45°04.97' N		Cruise: SO202 INOPEX	
Recovery: 22.70 m			Longitude: 174°08.39' W		Water Depth: 6159 m	
			Chinook Trough			
Lithology	Struct.	Color	Description			Age
		10YR4/2	1078-1552 cm: Mud-bearing diatom ooze with some radiolarians 1500-1530 cm: Brown, strongly mottled Many dark grayish streaks and dark patches	<i>smear slide 1513 cm</i>		
		10YR6/4	1530-1543 cm: Light yellowish brown, slightly mottled			
		10YR5/3	1543-1552 cm: Brown, moderately mottled			
		10YR7/4	1552-2270 cm: Diatom ooze 1552-1587 cm: Very pale brown, slightly mottled	<i>smear slide 1553 cm</i>		
		10YR5/2	1587-1601 cm: Grayish brown, slightly mottled			
		10YR5/3	1601-1613 cm: Brown, slightly mottled	<i>smear slide 1600 cm</i>		
		10YR4/2	1613-1667 cm: Dark grayish brown, strongly mottled			
			1647 cm: Very pale brown (10YR7/4) patches			
		10YR4/3	1667-1675 cm: Brown, moderately mottled	<i>smear slide 1667 cm</i>		
		10YR4/2	1675-1748 cm: Dark grayish brown, moderately mottled			
			1738 cm: Very pale brown (10YR7/4) patches	<i>smear slide 1720 cm</i>		
		10YR4/3	1748-1765 cm: Brown, moderately mottled			
		10YR6/4	1765-1780 cm: Light yellowish brown, slightly mottled	<i>smear slide 1769 cm</i>		
		10YR4/2	1780-1838 cm: Dark grayish brown, strongly mottled	<i>smear slide 1783 cm</i>		
		10YR5/4	1838-1853 cm: Yellowish brown, moderately mottled			
		10YR4/3	1853-1903 cm: Brown, slightly mottled			
		1869 cm: Big light yellowish brown (10YR6/4) patch				
			<i>smear slide 1903 cm</i>			
	10YR6/4	1903-1916 cm: Light yellowish brown, moderately mottled Grayish streaks				
	10YR4/2	1916-1924 cm: Dark grayish brown, moderately mottled				
	10YR5/3	1924-1936 cm: Brown, strongly mottled Dark gray streaks				
	10YR7/4	1936-1949 cm: Very pale brown, moderately mottled	<i>smear slide 1936 cm</i>			
	10YR5/3	1949-1967 cm: Brown, slightly mottled				
	10YR4/2	1967-1991 cm: Dark grayish brown, slightly mottled				
	10YR5/3	1991-2015 cm: Brown, strongly mottled	<i>smear slide 1993 cm</i>			

Fig. A.5-24e: Description of sediment core SO202-33-4 (piston core) 15.00 – 20.00 m.

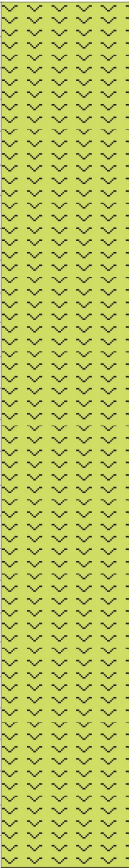
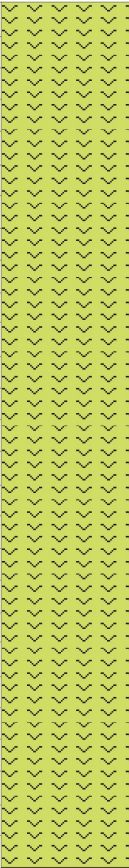
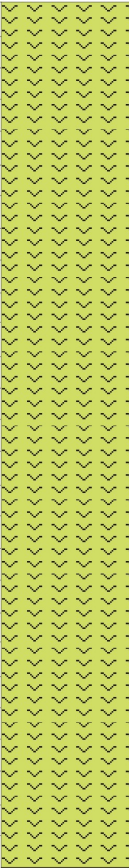
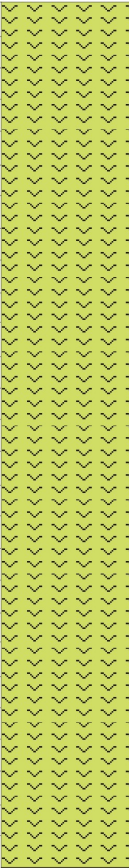
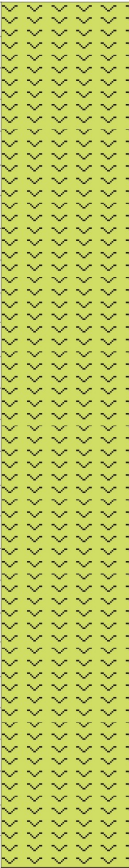
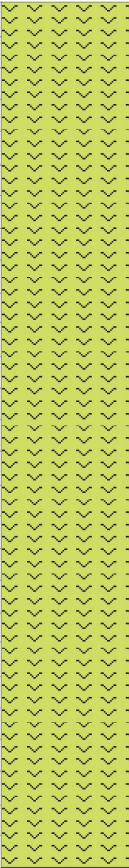
Core ID: SO202-33-4 KOL			Latitude: 45°04.97' N		Cruise: SO202 INOPEX	
Recovery: 22.70 m			Longitude: 174°08.39' W		Water Depth: 6159 m	
			Chinook Trough			
Lithology	Struct.	Color	Description			Age
20		10YR5/3	1552-2270 cm:	Diatom ooze		
			1991-2015 cm:	Brown, strongly mottled		
		10YR3/1	2015-2023 cm:	Very dark gray, strongly mottled	<i>smear slide 2020 cm</i>	
		10YR4/2	2023-2049 cm:	Dark grayish brown, strongly mottled		
				Light patches		
		10YR6/4	2049-2068 cm:	Light yellowish brown, slightly mottled		
					<i>smear slide 2062 cm</i>	
21		10YR5/3	2068-2078 cm:	Brown, slightly mottled		
		10YR6/4	2078-2096 cm:	Light yellowish brown, slightly mottled		
		10YR5/3	2096-2122 cm:	Brown, strongly mottled		
				Light patches	<i>smear slide 2110 cm</i>	
		10YR5/2	2122-2136 cm:	Grayish brown, slightly mottled		
		10YR6/4	2136-2167 cm:	Light yellowish brown, slightly mottled	<i>smear slide 2138 cm</i>	
22						
		10YR5/4	2167-2188 cm:	Yellowish brown, slightly mottled		
		10YR4/2	2188-2191 cm:	Dark grayish brown, moderately mottled	<i>smear slide 2190 cm</i>	
		10YR6/4	2191-2237 cm:	Light yellowish brown, slightly mottled		
23						
24						
25						

Fig. A.5-24f: Description of sediment core SO202-33-4 (piston core) 20.00 – 22.70 m.

Core ID: SO202-35-1 SL
Recovery: 19.29 m

Latitude: 39° 27.150`N
Longitude: 179° 06.690`W
west of southern Emperor Trough

Cruise: SO202 INOPEX
Water Depth: 5507 m

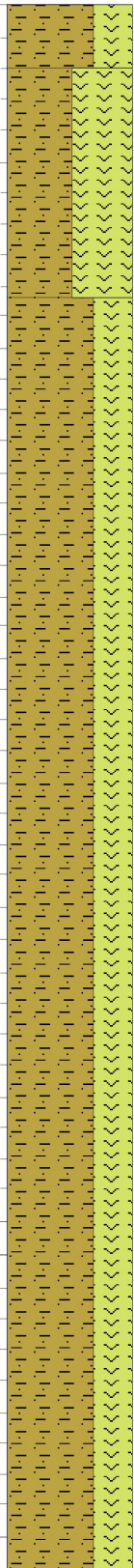
Lithology	Struct.	Color	Description	Age
		10YR4/2	0 - 951 cm: Diatom-bearing mud with traces of radiolarians to diatomaceous mud with some radiolarians	
		10YR5/3&10YR6/3	<i>smear slide 5 cm</i>	
			19 - 33 cm: slightly layered	
			33 - 68 cm: slightly mottled	
		10YR6/4&10YR5/3	<i>smear slide 55 cm</i>	
			68 - 93 cm: moderately mottled	
		10YR5/3	93 - 148 cm: slightly mottled, very dark gray patches with increased content of translucent particles	
		10YR4/2&10YR5/3	<i>smear slide 110 cm</i>	
		10YR6/4	<i>smear slide 134 cm</i>	
			<i>smear slide 139 cm</i>	
		10YR5/3	170 - 185 cm: moderately mottled	
		10YR6/4	230 - 240 cm: moderately mottled	
		10YR5/3	240 - 289 cm: slightly mottled	
		10YR6/4	289 - 334 cm: moderately mottled	
		10YR5/3&10YR4/2	<i>smear slide 305 cm</i>	
		10YR6/4	334 - 398 cm: slightly mottled	
		10YR5/3	<i>smear slide 406 cm</i>	
		10YR6/4	413 - 422 cm: moderately mottled	
		10YR5/3	443 - 479 cm: moderately mottled	

Fig. A.5-25a: Description of sediment core SO202-35-1 (gravity core) 0.00 – 5.00 m.

Core ID: SO202-35-1 SL
Recovery: 19.29 m

Latitude: 39° 27.150`N
Longitude: 179° 06.690`W
west of southern Emperor Trough

Cruise: SO202 INOPEX
Water Depth: 5507 m

Lithology	Struct.	Color	Description	Age
5		10YR5/3	0 - 951 cm: Diatom-bearing mud with traces of radiolarians to diatomaceous mud with some radiolarians	
		10YR6/4&10YR5/3	541 - 570 cm: moderately mottled	
6		10YR6/4	570 - 594 cm: slightly mottled	
		10YR5/3&10YR3/1	600 - 610 cm: strongly mottled, very dark gray patches with increased content of translucent particles	
7		10YR6/4	617 - 654 cm: slightly mottled	
		10YR4/2&10YR5/3	654 - 738 cm: strongly mottled, very dark gray patches with increased content of translucent particles	
8		10YR6/4	827 - 833 cm: moderately mottled	
		10YR5/3&10YR4/2	867 - 877 cm: slightly mottled	
9		10YR6/4	899 - 906 cm: slightly mottled	
		10YR5/3	925 - 951 cm: strongly mottled, very dark gray patches with increased content of translucent particles	
10		10YR6/4	951 - 1520 cm: Diatomaceous mud with some radiolarians	
		10YR6/4	951 - 1010 cm: slightly mottled	

Fig. A.5-25b: Description of sediment core SO202-35-1 (gravity core) 5.00 – 10.00 m.

Core ID: SO202-35-1 SL Recovery: 19.29 m			Latitude: 39° 27.150`N Longitude: 179° 06.690`W west of southern Emperor Trough		Cruise: SO202 INOPEX Water Depth: 5507 m	
Lithology	Struct.	Color	Description			Age
		10YR6/4	951 - 1520 cm: Diatomaceous mud with some radiolarians			
		10YR5/3& 10YR4/2& 10YR3/1	1010 - 1029 cm: strongly mottled, very dark gray patches with increased content of translucent particles			
		10YR5/3	1050 - 1059 cm: strongly mottled, very dark gray patches with increased content of translucent particles			
		10YR4/2& 10YR5/3	1086 - 1102 cm: moderately mottled			
		10YR6/4				
		10YR5/3& 10YR4/2				
		10YR6/4	1115 - 1126 cm: slightly mottled			
		10YR5/3				
		10YR6/4				
		10YR5/3	1160 - 1167 cm: slightly mottled			
		10YR6/4				
		10YR5/3	<i>smear slide 1183 cm</i>			
		10YR6/4	1186 - 1198 cm: slightly mottled			
		10YR4/2& 10YR5/3	1216 - 1229 cm: moderately mottled			
		10YR6/4				
		10YR4/2& 10YR5/3	1260 - 1271 cm: moderately mottled			
		10YR6/4				
		10YR5/3& 10YR4/2	1300 - 1310 cm: moderately mottled			
		10YR6/4				
		10YR5/3& 10YR4/2& 10YR3/1	1344 - 1358 cm: strongly mottled			
		10YR6/4	<i>smear slide 1352 cm</i>			
		10YR5/3& 10YR4/2& 10YR3/1	1375 - 1385 cm: strongly mottled			
		10YR6/4	1390 cm: lonestone, Ø 25mm			
		10YR5/3& 10YR4/2				
		10YR6/4	1400 - 1410 cm: moderately mottled			
	10YR5/3& 10YR4/2	1434 - 1503 cm: moderately mottled				

Fig. A.5-25c: Description of sediment core SO202-35-1 (gravity core) 10.00 – 15.00 m.

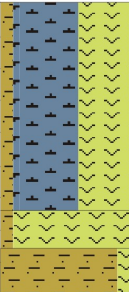











































Core ID: SO202-35-1 SL		Latitude: 39° 27.150`N		Cruise: SO202 INOPEX	
Recovery: 19.29 m		Longitude: 179° 06.690`W		Water Depth: 5507 m	
		west of southern Emperor Trough			
Lithology	Struct.	Color	Description	Age	
		10YR5/3& 10YR4/2& 10YR3/1	951 - 1520 cm: Diatomaceous mud with some radiolarians		
		10YR6/4	<i>smear slide 1510 cm</i>		
		10YR5/3& 10YR4/2& 10YR3/1	1503 - 1520 cm: strongly mottled, very dark gray patches with increased content of translucent particles		
			1520 - 1620 cm: Diatom-bearing mud with traces of radiolarians		
		10YR4/2& 10YR5/3	<i>smear slide 1563 cm</i>		
			1546 - 1585 cm: strongly mottled, very dark gray patches with increased content of translucent particles		
			1585 - 1620 cm: slightly mottled		
			1620 - 1929 cm: Diatomaceous mud with some radiolarians		
		10YR6/4	<i>smear slide 1652 cm</i>		
			1740 - 1771 cm: strongly mottled		
		10YR3/1& 10YR6/4	<i>smear slide 1760 cm</i>		
		10YR6/4	1787 - 1809 cm: moderately mottled		
		10YR4/2& 10YR5/3	1809 - 1929 cm: slightly mottled		
			1827 cm: lonestone, Ø 35mm, manganese crust		
		10YR5/3& 10YR4/2	1894 cm: lonestone, Ø 30mm, manganese crust		
		<i>smear slide 1909 cm</i>			
Base of sediment core					

Fig. A.5-25d: Description of sediment core SO202-35-1 (gravity core) 15.00 – 19.29 m.

Core ID: SO202-36-5 KOL TC
Recovery: 0.92 m

Latitude: 38°11.40' N
Longitude: 176°41.74' E
NE Hess Rise

Cruise: SO202 INOPEX
Water Depth: 4525 m

Lithology	Struct.	Color	Description	Age
	                                           			

Core ID: SO202-36-5 KOL
Recovery: 23.00 m

Latitude: 38°11.40' N
Longitude: 176°41.74' E
NE Hess Rise

Cruise: SO202 INOPEX
Water Depth: 4525 m

Lithology	Struct.	Color	Description	Age
0	10YR3/3	0-50 cm:	Mud-bearing diatom ooze	
	10YR5/3		Dark brown, brown and pale brown	
	10YR6/3			
	10YR5/3			
	10YR6/3	50-80 cm:	Mud-bearing diatom nannofossil ooze	
			Pale brown with patches of brown	
	10YR5/3			
	10YR4/3	80-178 cm:	Mud-bearing diatom ooze to mud-bearing diatom ooze with some nannofossils	
	10YR5/3		Brown and dark brown	
	10YR3/3		Patches of pale brown, dark brown or very dark brown (10YR2/2)	
1	10YR4/3			
	10YR5/3			
	10YR3/3			
	10YR4/3			
	10YR5/3			
2	10YR6/3	178-264 cm:	Diatom-bearing nannofossil ooze with some mud	
			Brown, pale brown and very pale brown	
	10YR7/3		Patches of brown, pale brown and very pale brown	
	10YR5/3			
3	10YR4/3	264-413 cm:	Muddy diatom ooze to mud-bearing diatom ooze	
			Brown, dark brown and pale brown	
	10YR5/3		Patches of brown, dark brown, pale brown and very dark brown	
	10YR4/3			
	10YR4/3			
	10YR5/3			
4	10YR5/3			
5		413-569 cm:	Diatomaceous mud	
			Brown and pale brown	
			Patches of brown, pale brown and dark brown	
	10YR6/3			
	10YR5/3			

Fig. A.5-26b: Description of sediment core SO202-36-5 (gravity core) 0.00 - 5.00 m.

Core ID: SO202-36-5 KOL Recovery: 23.00 m		Latitude: 38°11.40' N Longitude: 176°41.74' E NE Hess Rise		Cruise: SO202 INOPEX Water Depth: 4525 m	
Lithology	Struct.	Color	Description		Age
5			413-569 cm:	Diatomaceous mud Brown and pale brown Patches of brown, pale brown and dark brown	
	10YR7/3				
	10YR5/3		502-505 cm:	Diatomaceous nannofossil ooze with some mud Very pale brown and brown Patches of pale brown and dark brown	smear slide 504 cm
6			569-646 cm:	Muddy diatom ooze Dark brown Patches of brown and pale brown	smear slide 593 cm
	10YR4/3				
7			624 cm:	Manganese concretion or stone (diameter 1 cm)	
8			646-911 cm:	Diatomaceous mud Brown, pale brown, very pale brown and dark brown Patches of brown, pale brown, very pale brown and dark brown	smear slide 654 cm
	10YR5/3				
	10YR6/3				
9					
10					

Fig. A.5-26c: Description of sediment core SO202-36-5 (gravity core) 5.00 – 10.00 m.

Core ID: SO202-36-5 KOL Recovery: 23.00 m		Latitude: 38°11.40' N Longitude: 176°41.74' E NE Hess Rise		Cruise: SO202 INOPEX Water Depth: 4525 m	
Lithology	Struct.	Color	Description		Age
10		10YR5/3	940-1254 cm:	Diatomaceous mud	
		10YR6/3		Brown, pale brown, very pale brown and dark brown	
		10YR7/3		Patches of brown, dark brown, pale brown and very pale brown	
		10YR5/3			
11		10YR7/3			
		10YR5/3			
		10YR4/3			
		10YR5/3			
12		10YR6/3	1254-1325 cm:	Nannofossil-bearing diatomaceous mud	
		10YR5/3		Brown and pale brown	
		10YR6/3		Patches of brown, pale brown and very pale brown	
		10YR5/3			
13		10YR6/3	1325-1453 cm:	Mud- and diatom-bearing nannofossil ooze	
		10YR5/3		Brown, pale brown and dark brown	
		10YR4/3		Patches of brown, pale brown and very pale brown	
		10YR5/3			
14		10YR6/3	1453-1535 cm:	Muddy nannofossil-bearing diatom ooze	
		10YR5/3		Brown, pale brown, very pale brown and dark brown	
		10YR4/3		Patches of brown, dark brown, pale brown and very pale brown	
		10YR6/3			
15					

Fig. A.5-26d: Description of sediment core SO202-36-5 (gravity core) 10.00 – 15.00 m.

Core ID: SO202-36-5 KOL Recovery: 23.00 m		Latitude: 38°11.40' N Longitude: 176°41.74' E NE Hess Rise		Cruise: SO202 INOPEX Water Depth: 4525 m	
Lithology	Struct.	Color	Description		Age
15		10YR6/3	1453-1535 cm:	Muddy nannofossil-bearing diatom ooze Brown, pale brown, very pale brown and dark brown Patches of brown, dark brown, pale brown and very pale brown	
		10YR7/3			
		10YR4/3	1535-1588 cm:	Diatomaceous mud with some nannofossils Pale brown and dark brown Patches of brown, very pale brown and very dark brown	
		10YR6/3		<i>smear slide 1553 cm</i>	
		10YR7/3	1588-1781 cm:	Mud-bearing diatom nannofossil ooze Very pale brown, pale brown, brown and dark brown Patches of pale brown, very pale brown, very dark brown and dark brown	
		10YR5/3			
		10YR3/3		<i>smear slide 1659 cm</i>	
		10YR6/3			
		10YR4/3			
		10YR5/3			
16		10YR6/3			
		10YR4/3			
		10YR6/3			
		10YR5/3			
		10YR6/3			
		10YR7/3	1781-1862 cm:	Mud- and diatom-bearing nannofossil ooze Very pale brown, brown and pale brown Patches of pale brown, very pale brown and brown	<i>smear slide 1785 cm</i>
		10YR5/3			
		10YR7/3			
		10YR5/3			
		10YR6/3			
17		10YR5/3	1862-2052 cm:	Mud-bearing diatom ooze with some nannofossils to mud-bearing diatom ooze Brown, dark brown, pale brown, very pale brown Patches of dark brown, very dark brown, brown, pale brown and very pale brown	<i>smear slide 1883 cm</i>
		10YR4/3			
		10YR5/3		<i>smear slide 1930 cm</i>	
		10YR4/3			
		10YR6/3			
		10YR4/3			
		10YR7/3			
		10YR4/3			
		10YR7/3			
		10YR4/3			
18					
19					
20					

Fig. A.5-26e: Description of sediment core SO202-36-5 (gravity core) 15.00 – 20.00 m.

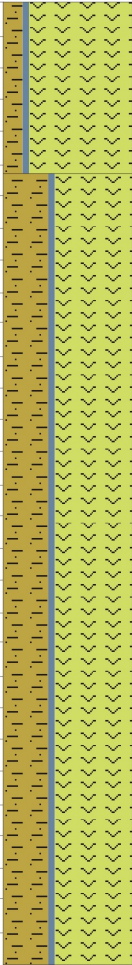










































Core ID: SO202-36-5 KOL		Latitude: 38°11.40' N		Cruise: SO202 INOPEX	
Recovery: 23.00 m		Longitude: 176°41.74' E		Water Depth: 4525 m	
		NE Hess Rise			
Lithology	Struct.	Color	Description	Age	
		10YR4/3	1862-2052 cm: Mud-bearing diatom ooze with some nannofossils to mud-bearing diatom ooze Brown, dark brown, pale brown, very pale brown Patches of dark brown, very dark brown, brown, pale brown and very pale brown		
		10YR6/3			
		10YR5/3			
		10YR4/3			
		10YR5/3	2052-2300 cm: Muddy diatom ooze to nannofossil-bearing muddy diatom ooze Very dark brown, brown, dark brown, pale brown Patches of brown, pale brown, very pale brown, dark brown and very dark brown <i>smear slide 2059 cm</i>		
		10YR3/3			
		10YR5/3			
					
					
					
					
					
		10YR4/3			
		10YR5/3			
					
		10YR6/3			
		10YR4/3			
		10YR5/3			
		10YR4/3			
					
					
	10YR5/3				
					
					
	10YR4/3				
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
					
Base of sediment core					

Fig. A.5-26f: Description of sediment core SO202-36-5 (gravity core) 20.00 – 23.00 m.

Core ID: SO202-39-3 KOL
Recovery: 20.23 m

Latitude: 38° 00.70'N
Longitude: 164° 26.78'E
east of northern Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 5102 m

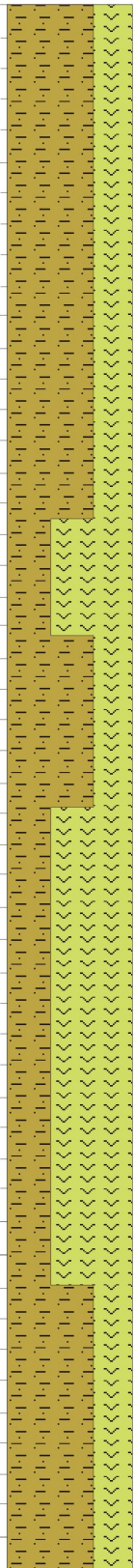
Lithology	Struct.	Color	Description	Age
		10YR3/3	0 - 1082 cm: Diatomaceous mud to mud-bearing diatom ooze with traces of radiolarians	
		2.5Y5/3	<i>smear slide 20 cm</i>	
		2.5Y5/2	0 - 13 cm: slightly mottled 13 - 17 cm: moderately mottled 17 - 161cm: slightly mottled	
		2.5Y6/2	<i>smear slide 100 cm</i>	
			161 - 203 cm: moderately mottled	
		2.5Y6/4	165 - 203 cm: mud-bearing diatom ooze <i>smear slide 190 cm</i>	
			203 - 323 cm: slightly mottled	
		10YR5/6		
		10YR5/6& 10YR4/1	<i>smear slide 240 cm</i>	
			258 - 409 cm: mud-bearing diatom ooze	
			<i>smear slide 300 cm</i>	
		5Y5/1	323 - 337 cm: moderately mottled 337 - 469 cm: slightly mottled <i>smear slide 340 cm</i>	
		2.5Y6/3	<i>smear slide 400 cm</i> 418 - 420 cm: layer of yellowish brown (2.5Y6/4)	
		2.5Y6/3	426 - 428 cm: layer of yellowish brown (2.5Y6/4)	
		2.5Y6/3		
			469 - 591 cm: moderately mottled	
		2.5Y6/4	<i>smear slide 500 cm</i>	

Fig. A.5-27a: Description of sediment core SO202-39-3 (piston core) 0.00 – 5.00 m.

Core ID: SO202-39-3 KOL
Recovery: 20.23 m

Latitude: 38° 00.70'N
Longitude: 164° 26.78'E
east of northern Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 5102 m

Lithology	Struct.	Color	Description	Age
			0 - 1082 cm: Diatomaceous mud to mud-bearing diatom ooze with traces of radiolarians	
		2.5Y6/4		<i>smear slide 540 cm</i>
			469 - 591 cm: moderately mottled	
		2.5Y6/2& 2.5Y5/0		
			591 - 631 cm: slightly mottled	<i>smear slide 595 cm</i>
		2.5Y6/3	591 - 618 cm: mud-bearing diatom ooze	
		2.5Y5/2		
				<i>smear slide 665 cm</i>
		2.5Y5/2& 2.5Y6/2& 2.5Y6/3	631 - 738 cm: moderately mottled	
			738 - 775 cm: slightly mottled 743 - 745 cm: very dark gray layer 748 - 750 cm: very dark gray layer 764 - 770 cm: loess concretion	
		2.5Y6/3	775 - 803 cm: moderately mottled 784 - 785 cm: loess concretion	<i>smear slide 780 cm</i> <i>smear slide 800 cm</i>
		2.5Y5/2	803 - 934 cm: slightly mottled	<i>smear slide 900 cm</i>
		2.5Y6/3& 2.5Y5/0	934 - 953 cm: moderately mottled	
		2.5Y6/3& 2.5Y6/0	953 - 983 cm: slightly mottled	
				<i>smear slide 1000 cm</i>
		2.5Y6/6		

Fig. A.5-27b: Description of sediment core SO202-39-3 (piston core) 5.00 – 10.00 m.

Core ID: SO202-39-3 KOL		Latitude: 38° 00.70`N		Cruise: SO202 INOPEX	
Recovery: 20.23 m		Longitude: 164° 26.78`E		Water Depth: 5102 m	
		east of northern Shatsky Rise			
Lithology	Struct.	Color	Description	Age	
10		2.5Y5/2	0 - 1082 cm: Diatomaceous mud to mud-bearing diatom ooze with traces of radiolarians		
		2.5Y6/3			
		2.5Y5/3			
			1082 - 1906 cm: Diatom bearing mud to muddy diatom ooze		
		2.5Y6/3&2.5Y5/3	1082 - 1122 cm: slightly mottled <i>Smear slide 1100 cm</i>		
			1103 - 1106 cm: patch of dark bluish-gray (5B4/1)		
		2.5Y5/2			
		2.5Y6/2	1130 - 1187 cm: moderately mottled		
		2.5Y6/3&2.5Y6/2			
			1187 - 1245 cm: slightly mottled <i>Smear slide 1220 cm</i>		
11		2.5Y6/4&2.5Y5/0	1187 - 1245 cm: diatomaceous mud		
		2.5Y5/3			
		2.5Y7/3			
		2.5Y5/3			
		2.5Y6/3			
		2.5Y5/2			
		2.5Y6/4&2.5Y5/2	1287 - 1315 cm: slightly mottled <i>Smear slide 1290 cm</i>		
		2.5Y6/4			
		10YR6/2	1380 - 1388 cm: ash layer <i>Smear slide 1385 cm</i> (no biogenic components)		
		2.5Y6/4			
12		2.5Y5/2			
		2.5Y6/3&2.5Y5/0	1437 - 1484 cm: moderately mottled <i>Smear slide 1480 cm</i>		
		2.5Y5/2			
13					
14					
15					

Fig. A.5-27c: Description of sediment core SO202-39-3 (piston core) 10.00 – 15.00 m.

Core ID: SO202-39-3 KOL
Recovery: 20.23 m

Latitude: 38° 00.70`N
Longitude: 164° 26.78`E
east of northern Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 5102 m

Lithology	Struct.	Color	Description	Age
15		2.5Y5/2	1082 - 1906 cm: Diatom bearing mud to muddy diatom ooze	
		2.5Y6/3& 2.5Y5/2	1516 - 1547 cm: slightly mottled <i>Smear slide 1550 cm</i>	
		2.5Y6/3		
16		2.5Y5/6 2.5Y6/3& 2.5Y5/2	1599 - 1611 cm: slightly mottled	
		2.5Y5/2	1623 - 1637 cm: ash layer? <i>Smear slide 1634 cm</i>	
		2.5Y6/2		
17		2.5Y5/2	1667 - 1668 cm: loess concretion	
		2.5Y4/2		
		2.5Y6/3& 2.5Y4/2	1690 - 1711 cm: slightly mottled <i>Smear slide 1700 cm</i>	
18		2.5Y6/3		
		2.5Y5/2	<i>Smear slide 1780 cm</i>	
		2.5Y6/3& 2.5Y5/2	1800 - 1833 cm: moderately mottled	
19		2.5Y6/3		
		2.5Y5/2	<i>Smear slide 1880 cm</i>	
		2.5Y7/3& 2.5Y5/2	1873 - 1903 cm: muddy diatom ooze 1900 - 1903 cm: layer of dark gray 1906 - 2023 cm: Silty mud with some diatoms	
20		2.5Y5/2		
		2.5Y5/4		
		2.5Y5/2	1939 - 1941 cm: loess concretion <i>Smear slide 1940 cm</i>	
		2.5Y5/2& 2.5Y5/6	1951 - 1983 cm: slightly mottled	
		2.5Y6/3& 2.5Y4/0		
		2.5Y6/2& 2.5Y6/3 2.5Y5/2	1983 - 2023 cm: moderately mottled <i>Smear slide 2000 cm</i>	

Fig. A.5-27d: Description of sediment core SO202-39-3 (piston core) 15.00 – 20.00 m.

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Fig. A.5-27e: Description of sediment core SO202-39-3 (piston core) 20.00 – 20.23 m.

Core ID: SO202-40-1 KOL TC
Recovery: 0.96 m

Latitude: 38°00.06'N
Longitude: 162°41.09'E
North Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 3446 m

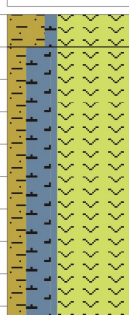
Lithology	Struct.	Color	Description	Age
		10YR6/4	0 - 10 cm: Nannofossil-bearing muddy diatom ooze	
		2.5Y5/3 (2.5Y6/3)	0 - 10 cm: light yellowish brown <i>smear slide 3 cm</i>	
			10 - 96 cm: Nannofossil- and mud-bearing diatom ooze with some foraminifers	
		2.5Y6/0		
		10YR6/4 2.5Y5/3	10 - 66 cm: light olive brown with patches of light yellowish brown <i>smear slide 29 cm</i>	
		2.5Y7/2	66 - 73 cm: light gray	
			73 - 79 cm: light yellowish brown <i>smear slide 70 cm</i>	
			79 - 90 cm: light olive brown	
			90 - 96 cm: light gray	

Fig. A.5-28a: Description of sediment core SO202-40-1 (trigger core) 0.00 – 0.96 m.

Core ID: SO202-40-1 KOL
Recovery: 15.38 m

Latitude: 38°00.06'N
Longitude: 162°41.09'E
North Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 3446 m

Lithology	Struct.	Color	Description	Age
		10YR6/4 2.5Y5/3	Upper 75 cm missing!	
		2.5Y7/2	0 - 188 cm: Nannofossil- and mud-bearing diatom ooze to nannofossil-bearing muddy diatom ooze	
		5Y5/2		
		5Y6/1	0 - 8 cm: light yellowish brown	
		2.5Y4/2		smear slide 3 cm
		2.5Y6/2	8 - 23 cm: light olive brown	
				smear slide 18 cm
			23 - 34 cm: light gray	
				smear slide 25 cm
			34 - 47 cm: olive gray	
			47 - 55 cm: gray	
			55 - 62 cm: ash layer	
			dark grayish brown	
				smear slide 58 cm
			61 - 62 cm: ash layer	
		5Y6/1 (2.5Y8/0)	62 - 118 cm: light brownish gray	
			118 - 152 cm: gray with patches of 2.5Y7/2 (light gray)	
				smear slide 128 cm
			152 - 188 cm: gray with cords of 2.5Y8/0 (white)	
		2.5Y8/0	188 - 529 cm: Diatom- and mud-bearing nannofossil ooze to nannofossil ooze with some diatoms and mud	
			188 - 270 cm: white with layers of greenish gray	
				smear slide 210 cm
		5GY6/1		
				smear slide 260 cm
		5Y5/1	270 - 288 cm: gray	
		5Y6/1	288 - 320 cm: greenish gray	
			320 - 334 cm: gray with layer of greenish gray	
		5Y6/1		smear slide 325 cm
		5GY6/1 5Y5/1	334 - 371 cm: gray	
		5Y7/1 10R6/1	371 - 396 cm: light gray with streaks of reddish gray	
				smear slide 383 cm
		5Y5/1	396 - 430 cm: gray with waves of light gray	
		5Y7/1		
		5Y7/1	430 - 479 cm: light gray	
			479 - 498 cm: gray	
		5Y5/1 2.5Y8/0	498 - 529 cm: white	

Fig. A.5-28b: Description of sediment core SO202-40-1 (piston core) 0.00 – 5.00 m.

Core ID: SO202-40-1 KOL
Recovery: 15.38 m

Latitude: 38°00.06'N
Longitude: 162°41.09'E
North Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 3446 m

Lithology	Struct.	Color	Description	Age
5		2.5Y8/0	188 - 529 cm: Diatom- and mud-bearing nannofossil ooze to nannofossil ooze with some diatoms and mud	
		5Y7/1	498 - 529 cm: white <i>smear slide 505 cm</i>	
		5Y5/1	529 - 796 cm: Mud-bearing nannofossil ooze with some diatoms to diatom-bearing muddy nannofossil ooze with some foraminifers	
		5Y6/1	529 - 547 cm: white gray 547 - 568 cm: gray 568 - 605 cm: gray <i>smear slide 590 cm</i>	
		5Y7/1	605 - 629 cm: light gray <i>smear slide 618 cm</i>	
		5Y5/1	629 - 636 cm: gray	
		5Y4/1	636 - 642 cm: ash layer, dark gray <i>smear slide 639 cm</i>	
		5Y6/1	642 - 709 cm: gray <i>smear slide 690 cm</i>	
		5Y5/1	709 - 717 cm: ash layer, dark gray <i>smear slide 715 cm</i>	
		5Y4/1	717 - 730 cm: gray	
6		5Y5/1	730 - 749 cm: gray	
		5Y6/1	749 - 782 cm: gray with layers of 5Y5/1 (gray)	
		5Y5/1	796 - 1538 cm: Changes without sharp boundaries from: 1. Mud-bearing diatomaceous foraminiferous nannofossil ooze and muddy diatomaceous nannofossil ooze with some foraminifers (Type 1) to 2. Diatom- and nannofossil-bearing mud (Type 2)	
		5Y6/1	796 - 811 cm: Type 1 , gray <i>smear slide 805 cm</i>	
		5GY5/1	811 - 829 cm: greenish gray, highly bioturbated	
		5Y4/1	829 - 863 cm: Type 2 , dark gray <i>smear slide 835 cm</i>	
		5Y4/1	863 - 865 cm: dark gray	
		5Y4/1	865 - 890 cm: Type 1 , gray <i>smear slide 870 cm</i>	
		5Y5/1	890 - 899 cm: gray	
		5Y6/1	899 - 907 cm: Type 2 , light gray <i>smear slide 903 cm</i>	
7		5Y7/1	907 - 917 cm: gray to light gray, heavy bioturbation	
		5Y5/1 to 5Y7/1	917 - 950 cm: gray	
		5Y6/1	950 - 953 cm: ash layer, dark grayish brown	
		5Y4/2	953 - 976 cm: gray	
		5Y5/1	976 - 995 cm: Type 1 , light gray <i>smear slide 986 cm</i>	
		5Y7/1	995 - 999 cm: gray	
		5Y6/1	999 - 1008 cm: gray	
		5Y5/1	1000 - 1008 cm: gray	
8				
9				
10				

Fig. A.5-28c: Description of sediment core SO202-40-1 (piston core) 5.00 – 10.00 m.

Core ID: SO202-40-1 KOL
Recovery: 15.38 m

Latitude: 38°00.06'N
Longitude: 162°41.09'E
North Shatsky Rise

Cruise: SO202 INOPEX
Water Depth: 3446 m

Lithology	Struct.	Color	Description	Age
10	5Y5/1		1000 - 1008 cm: gray	
	5Y6/1		1008 - 1031 cm: gray	
			1031 - 1042 cm: gray	
	5Y5/1		1042 - 1051 cm: gray	
	5Y6/1		1051 - 1068 cm: gray	
	5Y5/1		1068 - 1074 cm: Type 2 , dark gray	
			smear slide 1072 cm	
	5Y4/2		1074 - 1086 cm: gray	
	5Y5/1		1086 - 1090 cm: dark gray	
	5Y4/2		1090 - 1095 cm: Type 1 , gray	
			smear slide 1090 cm	
	5Y5/1		1095 - 1097 cm: dark gray	
	5Y6/1		1097 - 1103 cm: gray	
	5Y4/2		1103 - 1109 cm: gray	
	5Y7/1		1109 - 1122 cm: light gray	
	5Y6/1		1122 - 1127 cm: gray	
	5Y7/1		1127 - 1146 cm: light gray	
	5Y5/1 to 5Y6/1		1146 - 1158 cm: mixed gray layer	
	5Y7/1		1158 - 1175 cm: light gray	
	5Y6/1		1175 - 1189 cm: gray	
	5Y7/1		1189 - 1215 cm: Type 1 , light gray	
12			smear slide 1208 cm	
	5Y5/1 to 5Y6/1		1215 - 1230 cm: mixed gray layer	
	5Y7/1		1230 - 1241 cm: light gray	
	5Y4/1 to 5Y5/1		1241 - 1253 cm: Type 1 , mixed dark gray and dark greenish gray	
	5Y7/1		smear slide 1251 cm	
	5Y5/1		1253 - 1260 cm: gray	
			1260 - 1283 cm: light gray	
			1272 - 1277 cm: black layer (5Y3/1)	
	5Y5/1		1283 - 1302 cm: Type 2 , gray with black streaks	
			smear slide 1300 cm	
13	5Y7/1		1302 - 1326 cm: light gray	
	5Y6/1		1326 - 1357 cm: gray with dark (5Y5/1) streaks	
			1357 - 1370 cm: light gray	
	5Y7/1		1370 - 1377 cm: Type 2 , gray	
	5Y5/1		smear slide 1375 cm	
	5Y7/1		1377 - 1383 cm: light gray	
	5Y5/1		1383 - 1386 cm: gray	
	5Y7/1		1386 - 1407 cm: light gray with dots of 5Y6/1 and 5Y5/1	
	5Y5/1 to 5Y6/1		1407 - 1423 cm: mixed gray	
	5Y7/1		1423 - 1432 cm: Type 1 , light gray	
14	5Y6/1		smear slide 1428 cm	
	5Y7/1		1432 - 1441 cm: gray	
			1441 - 1472 cm: light gray with layers of gray (5Y6/1)	
			1472 - 1478 cm: gray	
			1478 - 1490 cm: light gray	
	5Y6/1		1490 - 1493 cm: Type 2 , gray	
	5Y7/1		smear slide 1491 cm	
	5Y6/1		1493 - 1506 cm: light gray	
	5Y7/1			
15				

Fig. A.5-28d: Description of sediment core SO202-40-1 (piston core) 10.00 – 15.00 m.

Core ID: SO202-40-1 KOL			Latitude: 38°00.06'N		Cruise: SO202 INOPEX	
Recovery: 15.38 m			Longitude: 162°41.09'E		Water Depth: 3446 m	
			North Shatsky Rise			
Lithology		Struct.	Color	Description		Age
15			SSSSS SSSSS SSSSS SSSSS SSSSS	5Y7/1 5Y5/1 5Y7/1 — —	1493 - 1506 cm: light gray 1506 - 1511 cm: gray 1511 - 1538 cm: light gray with streaks of gray (5Y6/1 and 5Y5/1)	
Base of sediment core						
16						
17						
18						
19						
20						

Fig. A.5-22e: Description of sediment core SO202-40-1 (piston core) 15.00 – 15.38 m.

A.6 SO202-INOPEX PARASOUND AT STATIONS

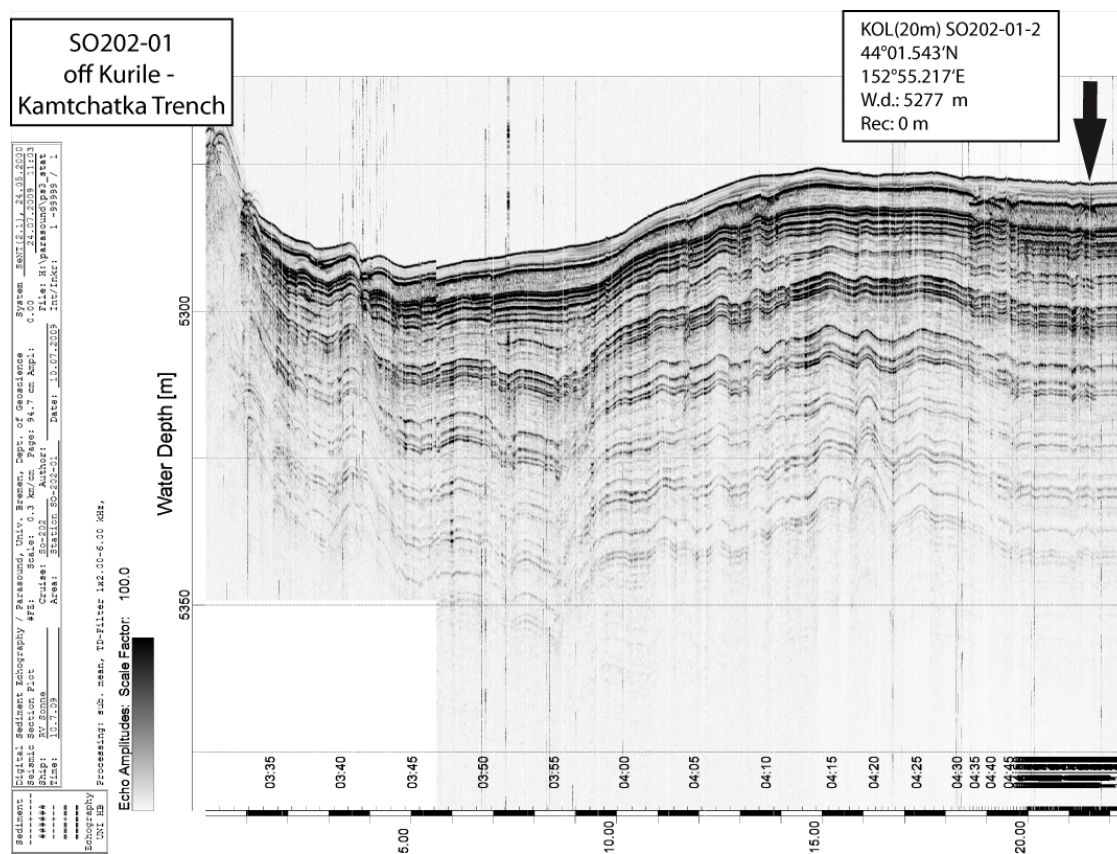


Fig. A.6-1

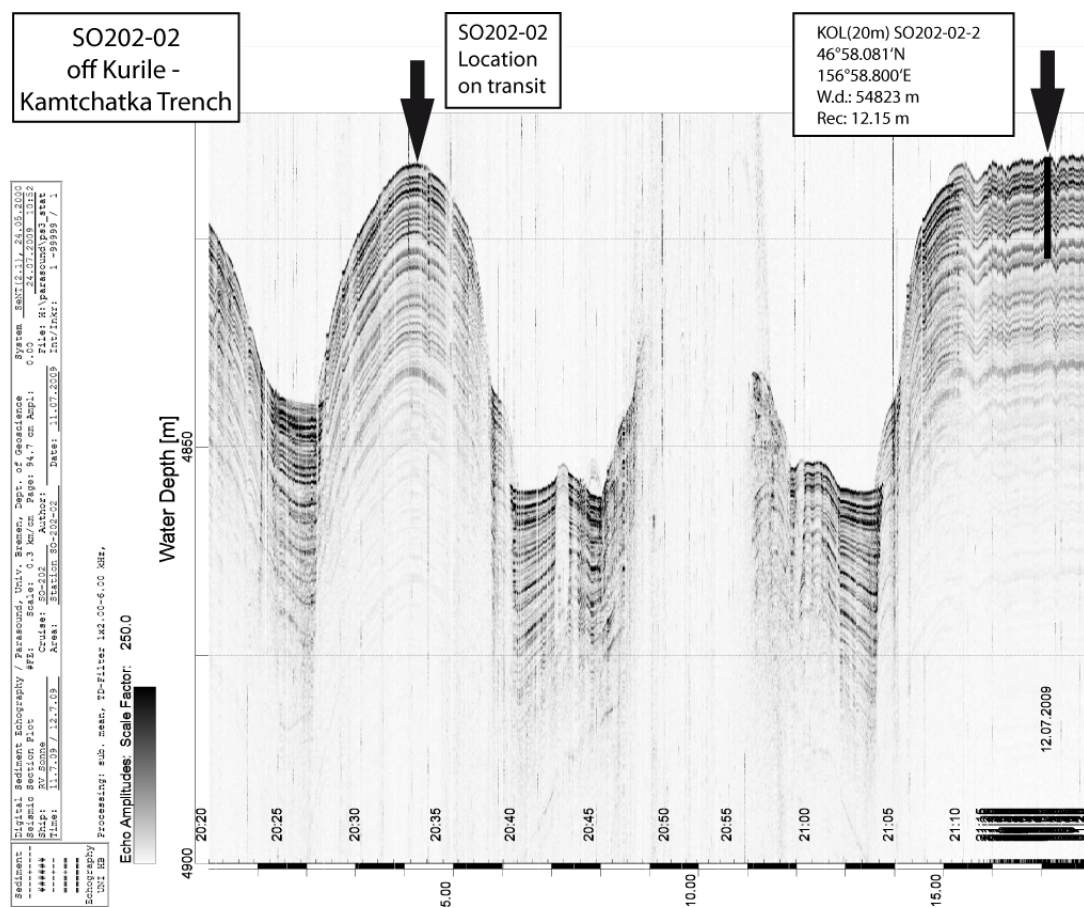


Fig. A.6-2

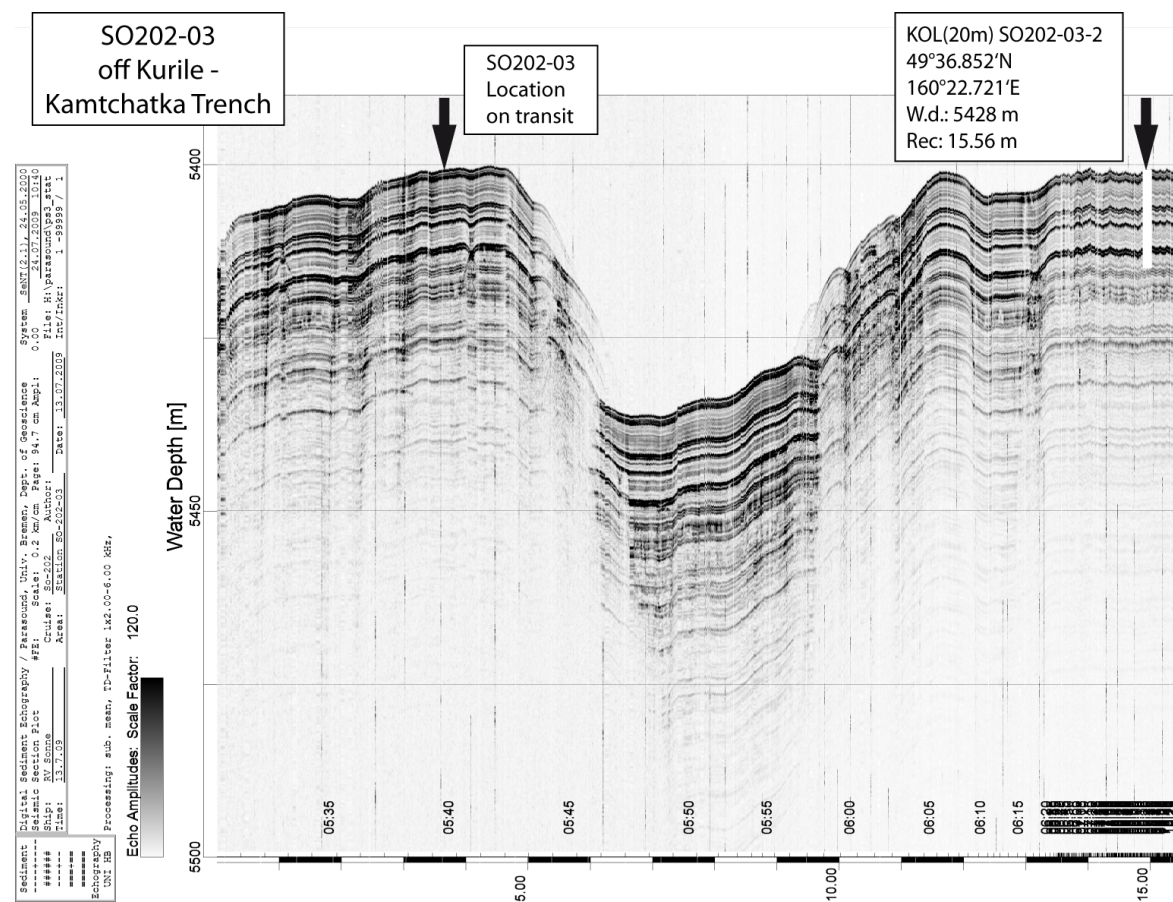


Fig. A.6-3

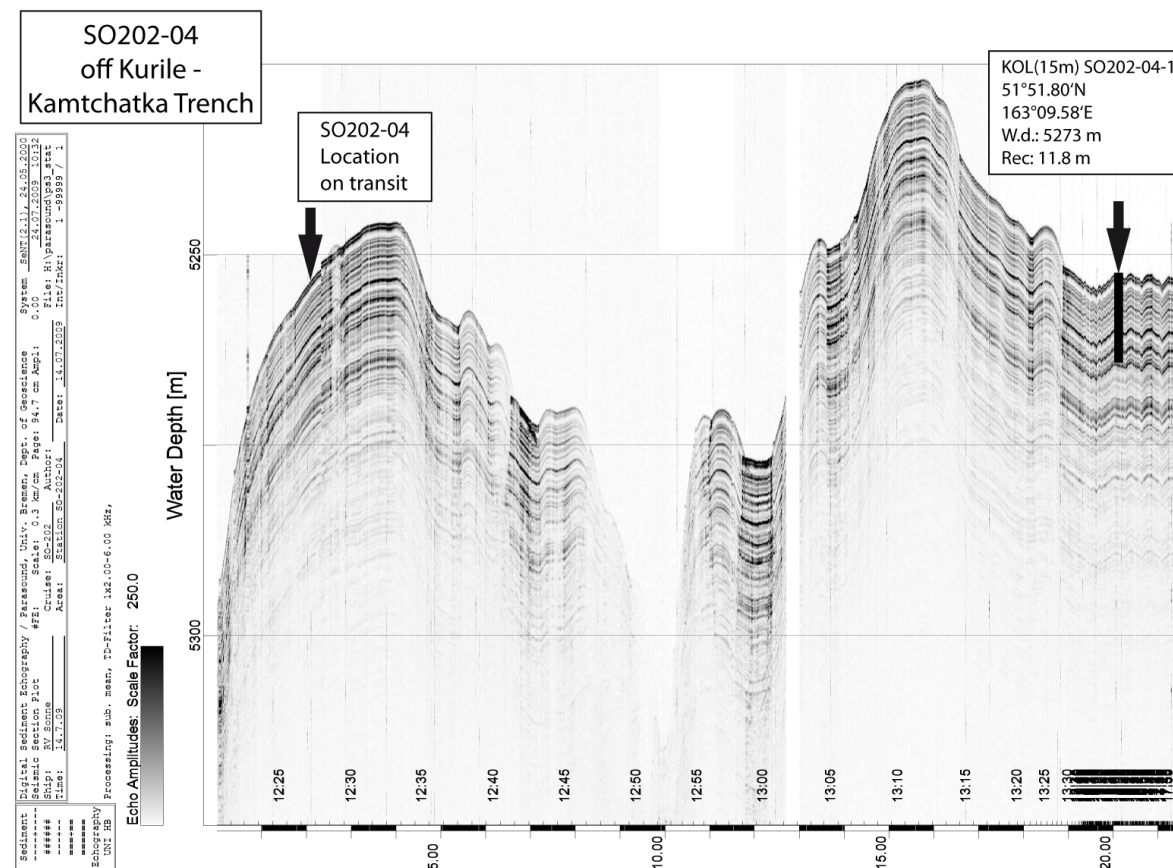


Fig. A.6-4

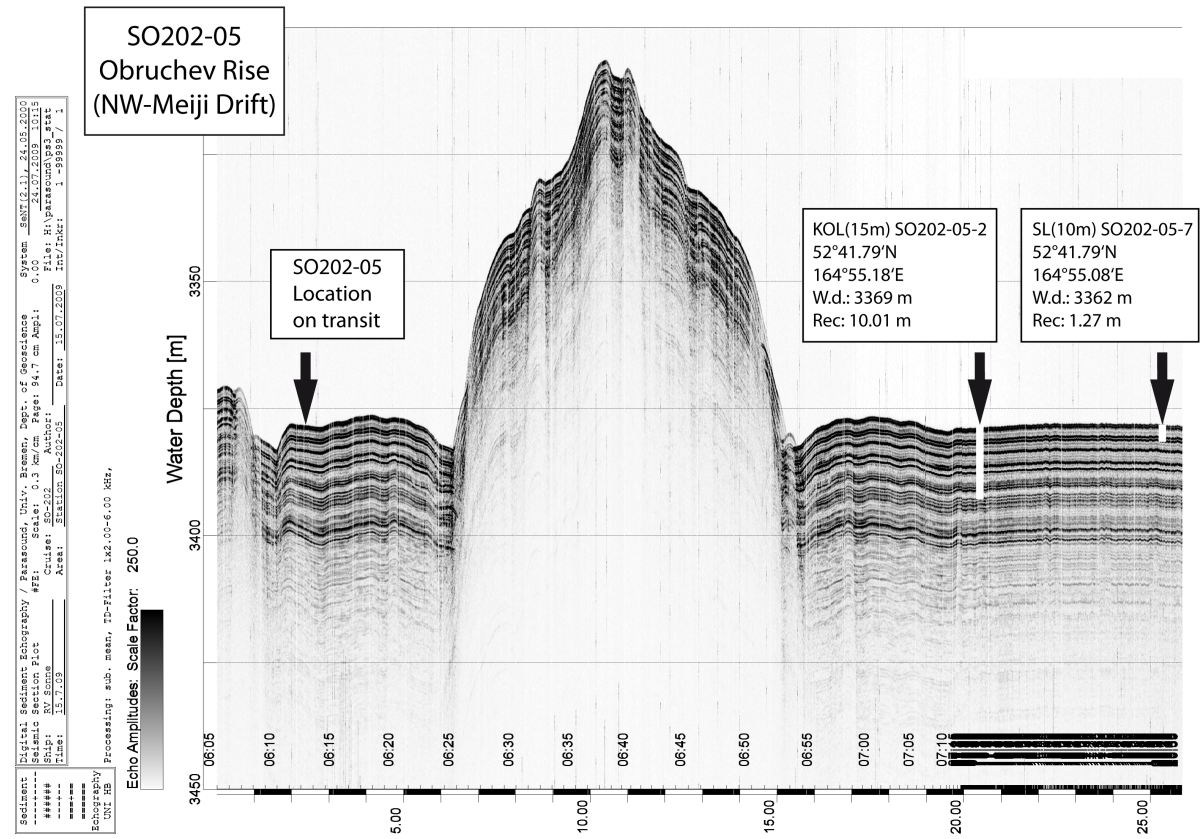


Fig. A.6-5a

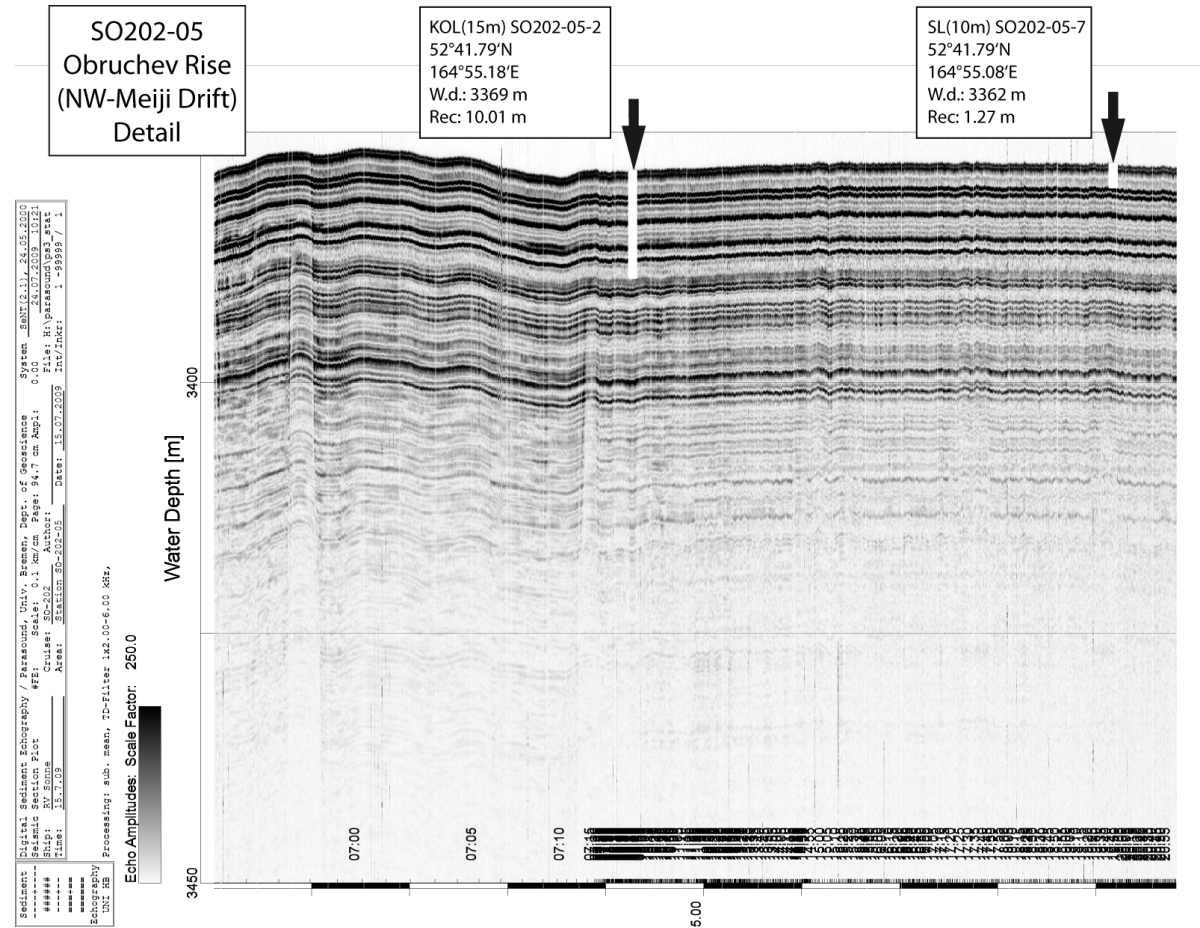


Fig. A.6-5b

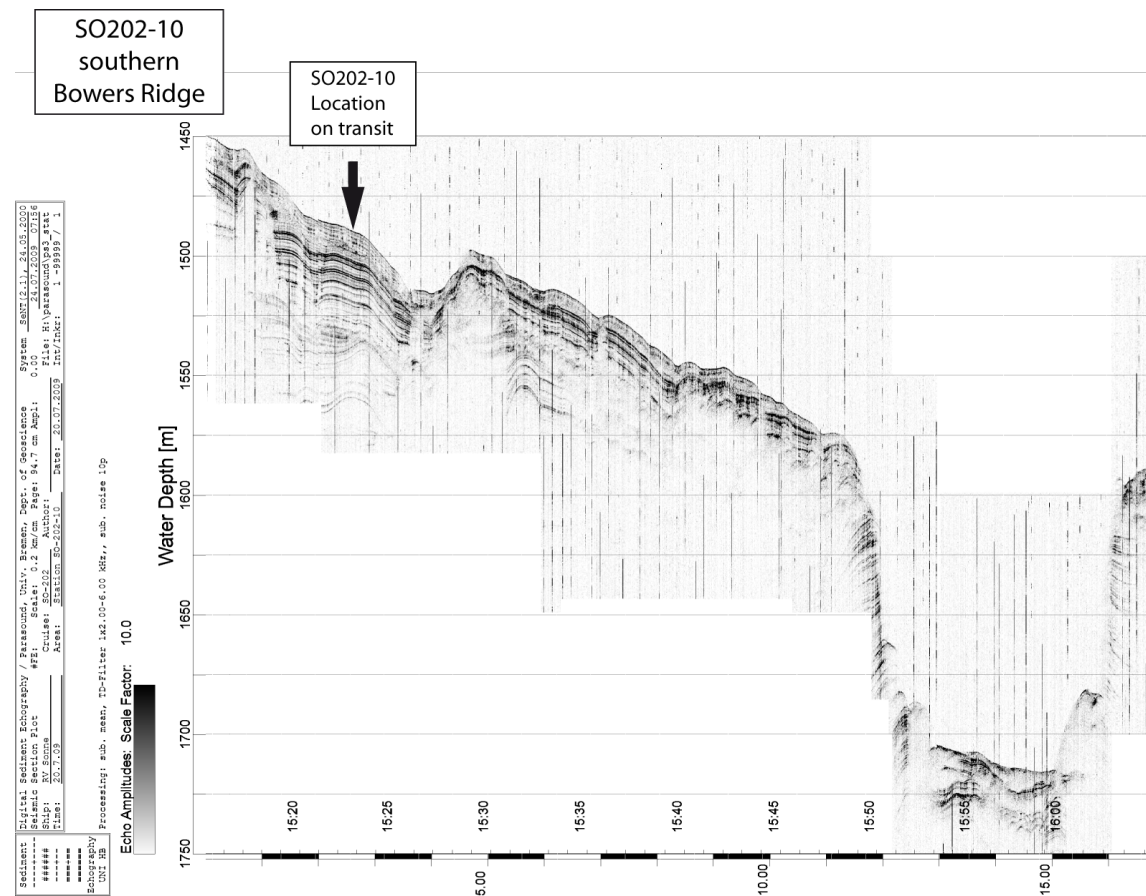


Fig. A.6-10a

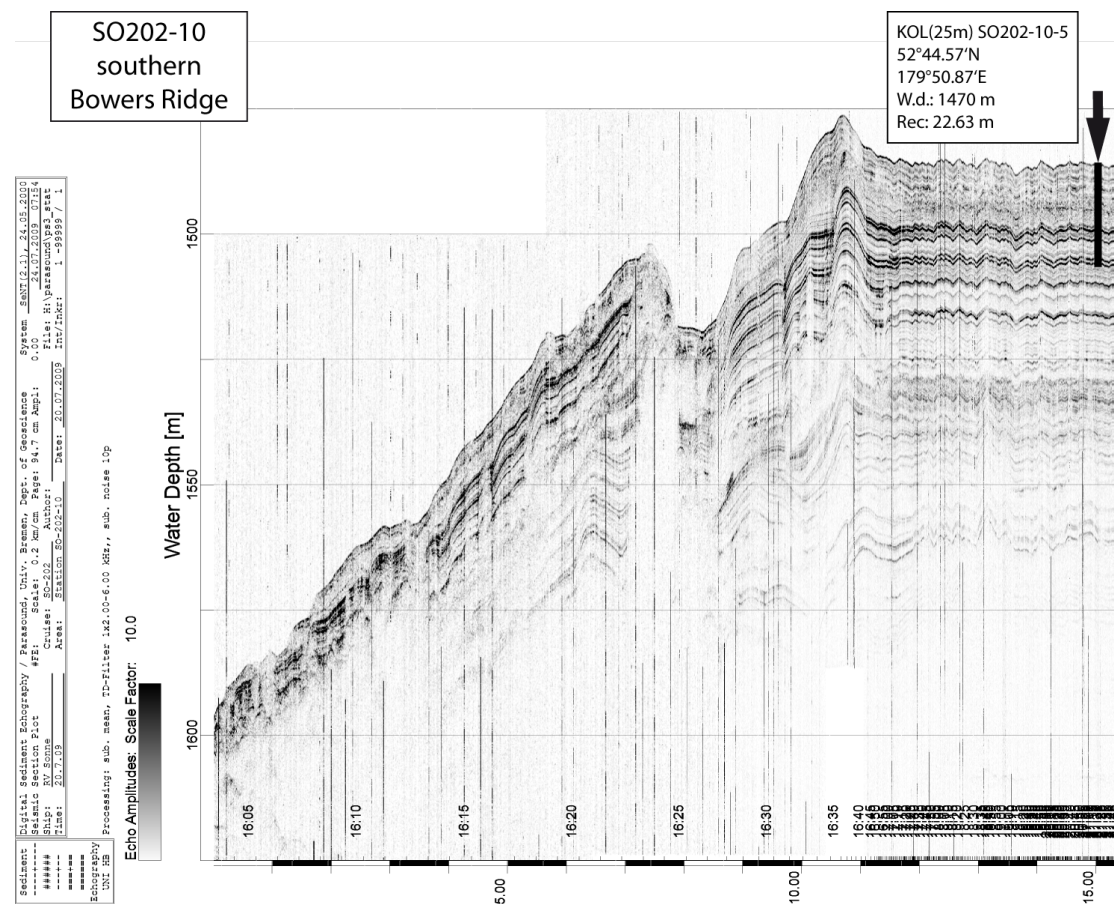


Fig. A.6-10b

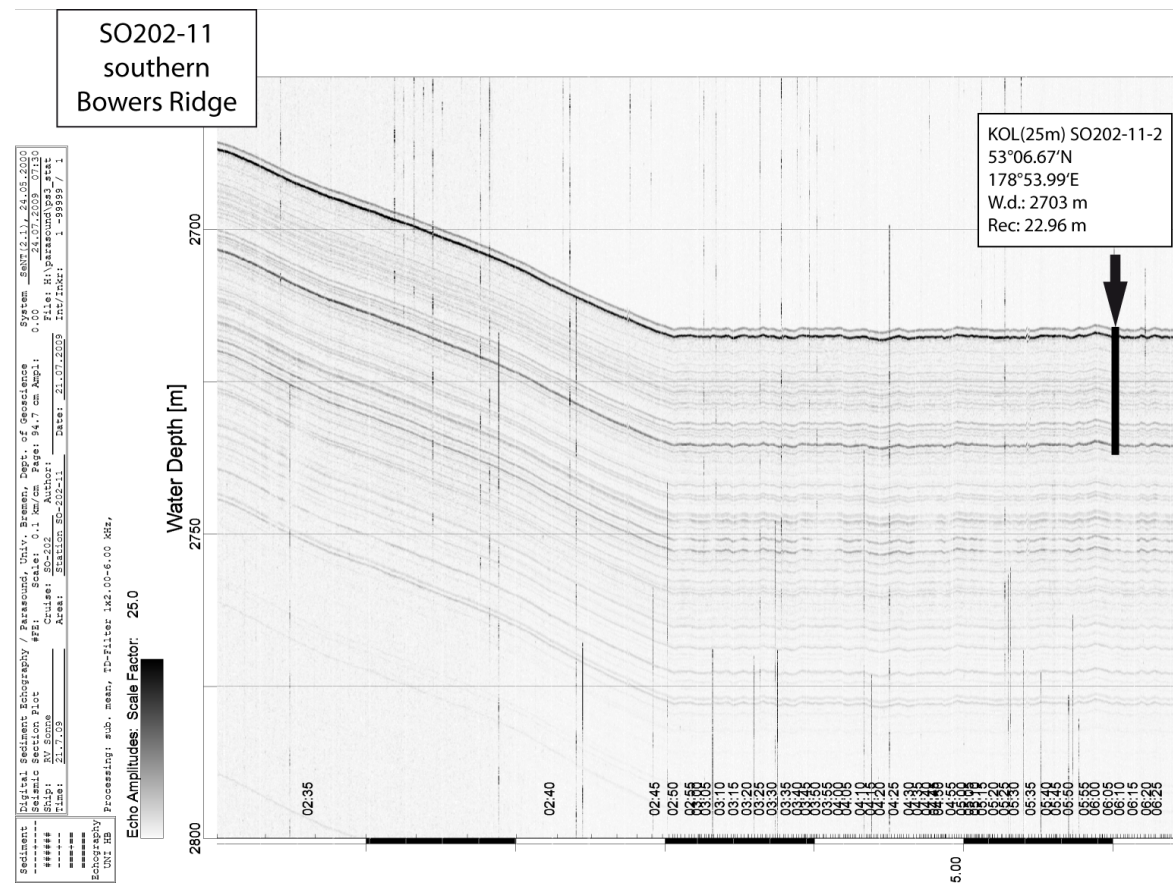


Fig. A.6-11

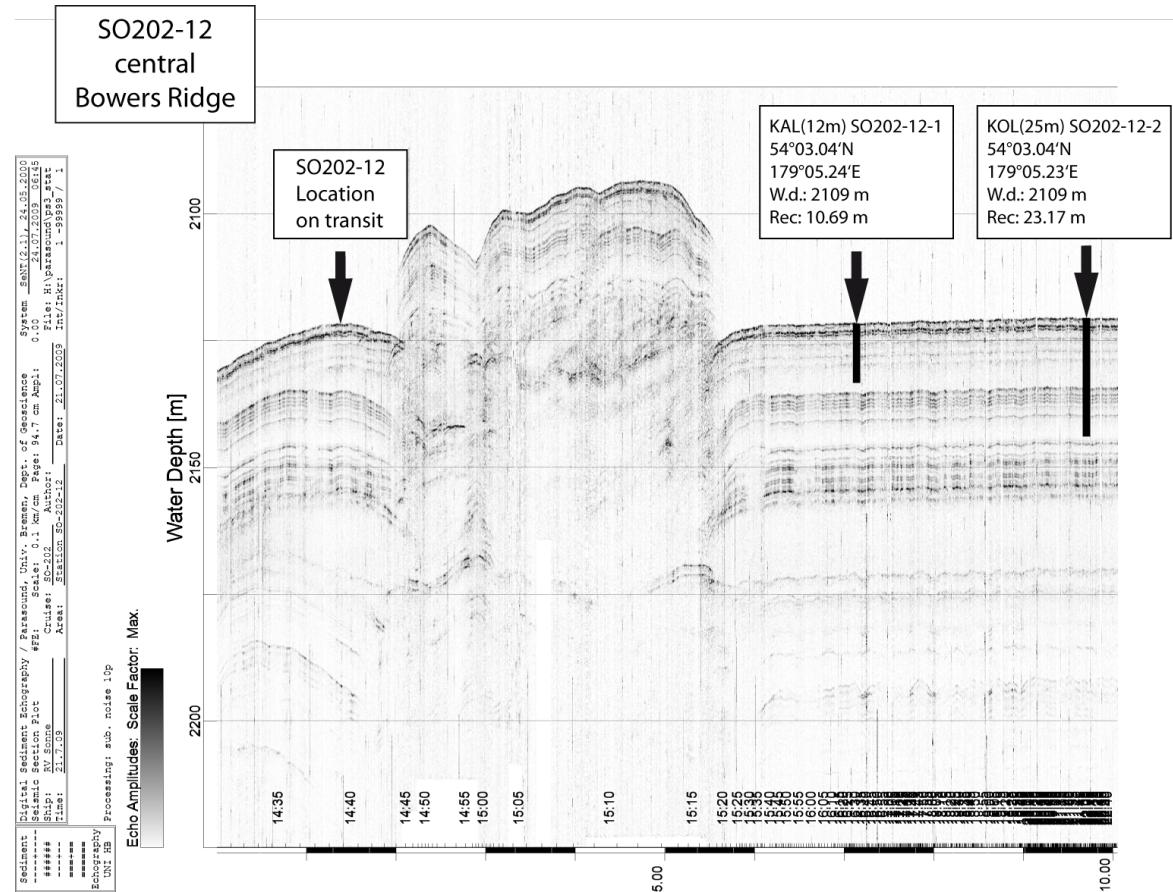


Fig. A.6-12a

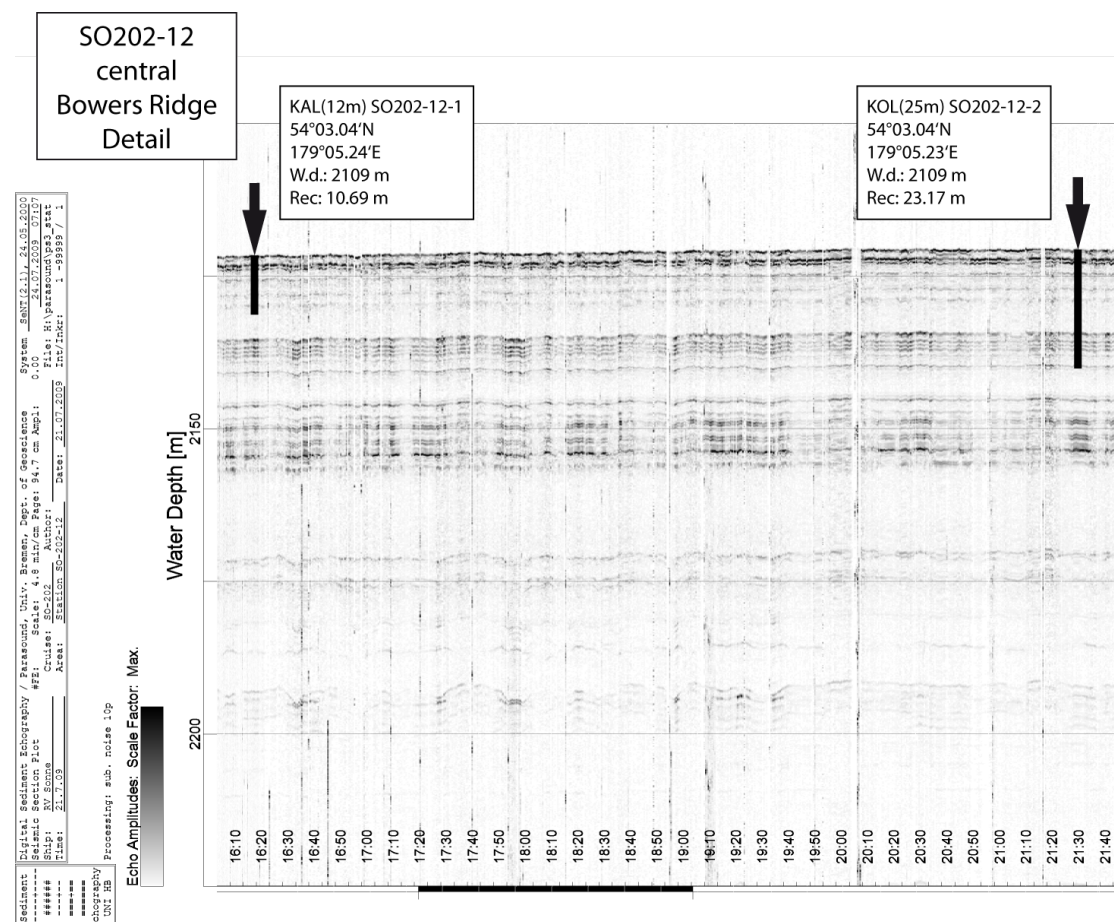


Fig. A.6-12b

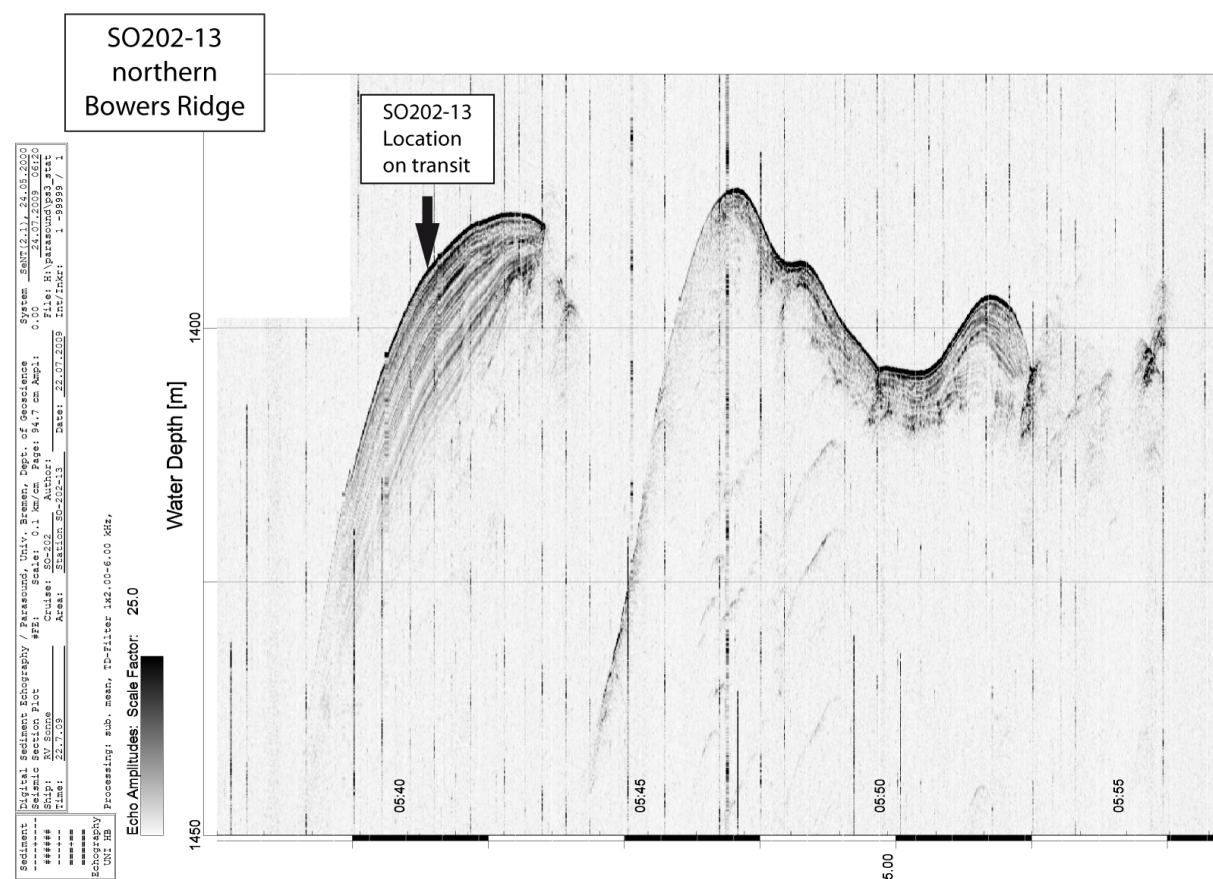


Fig. A.6-13a

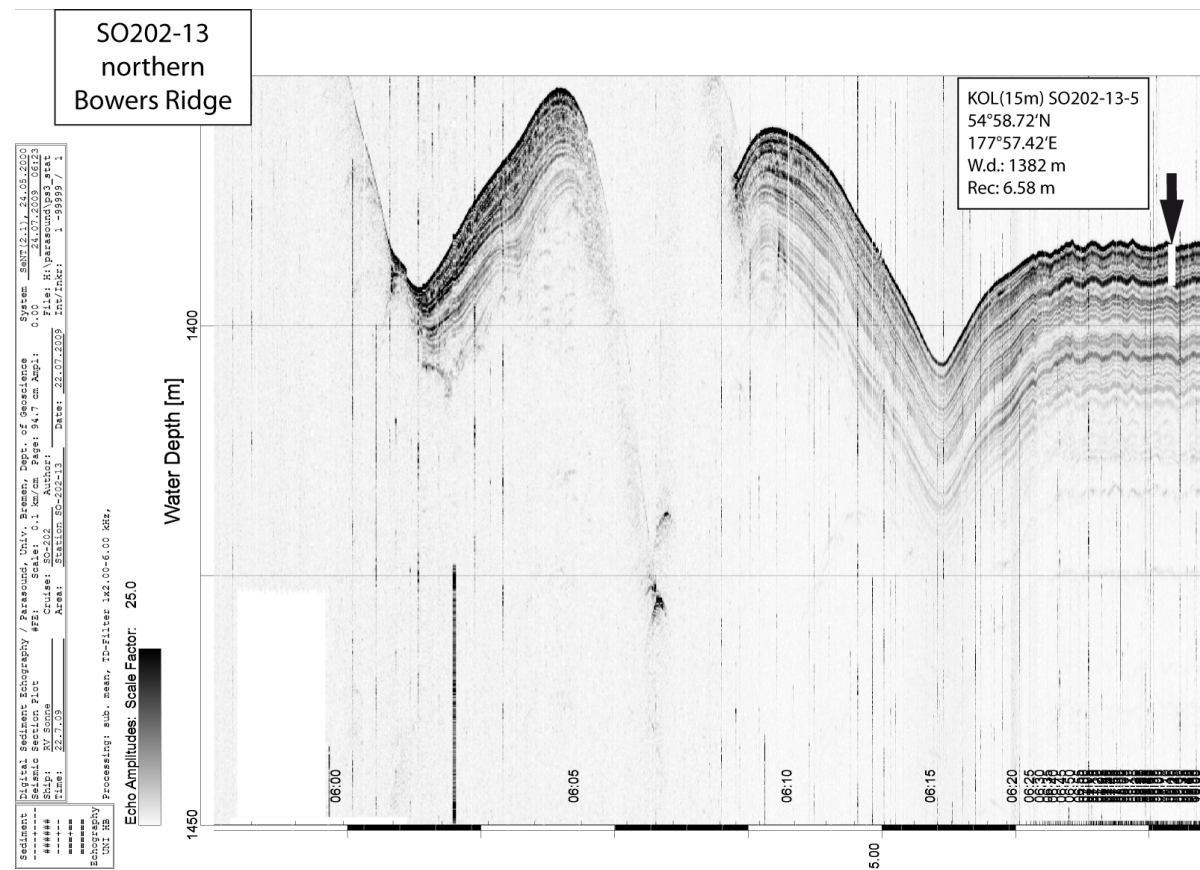


Fig. A.6-13b

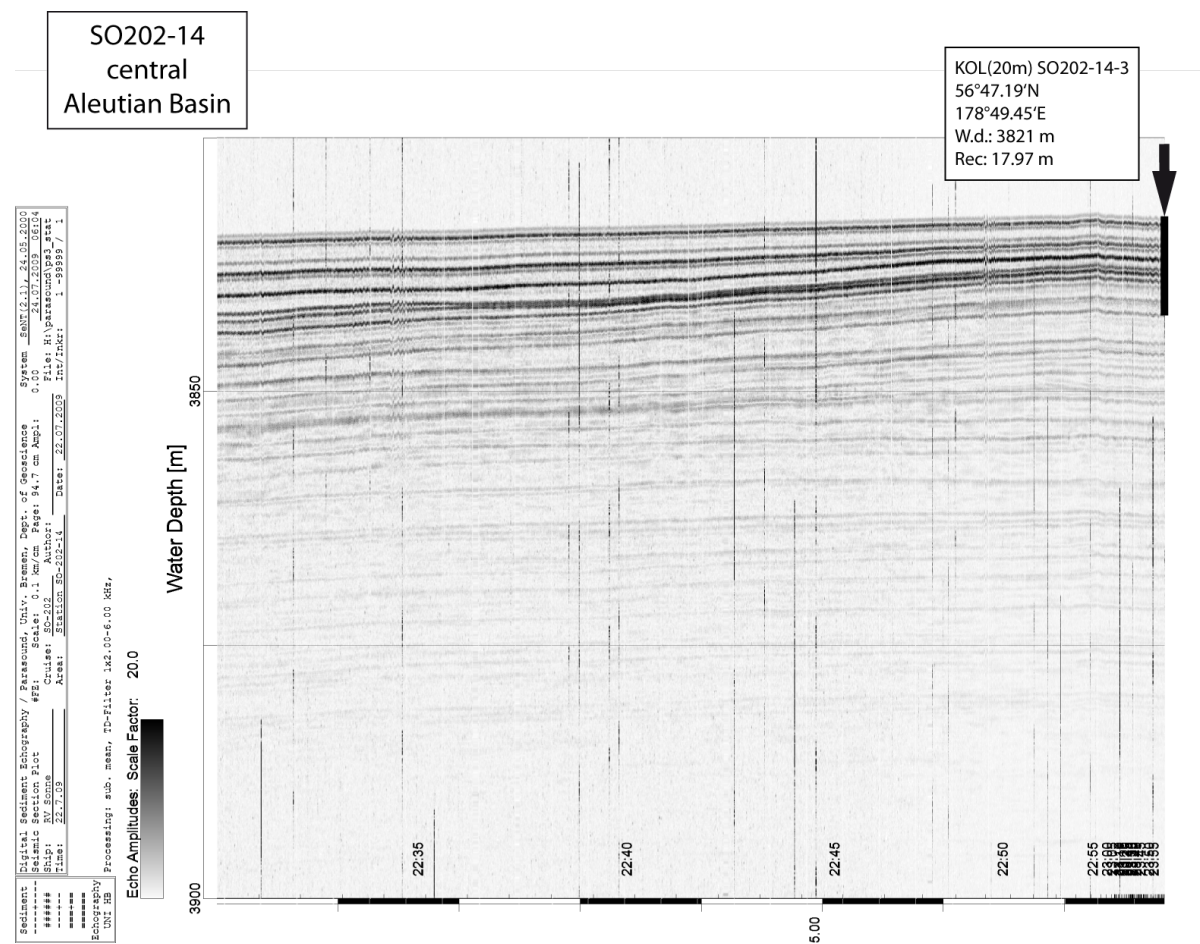
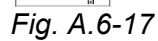


Fig. A.6-14



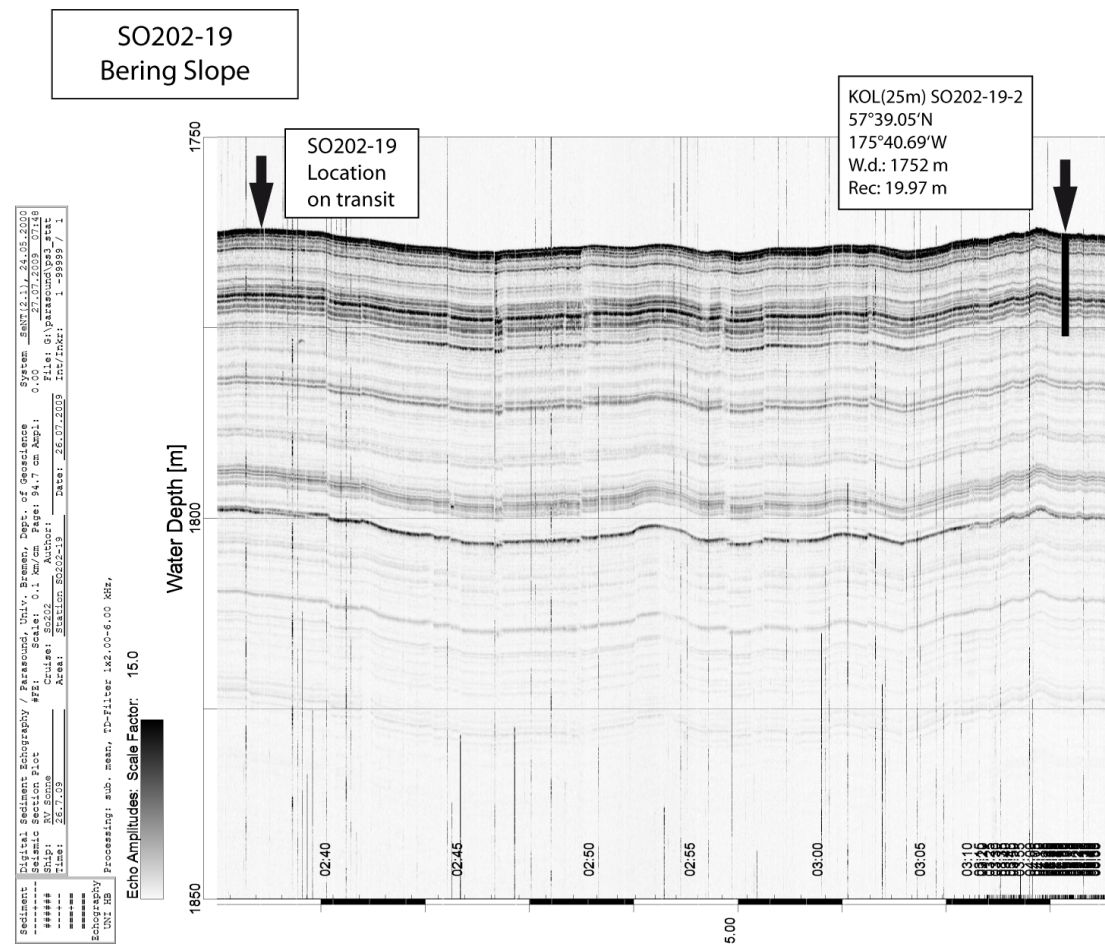


Fig. A.6-19

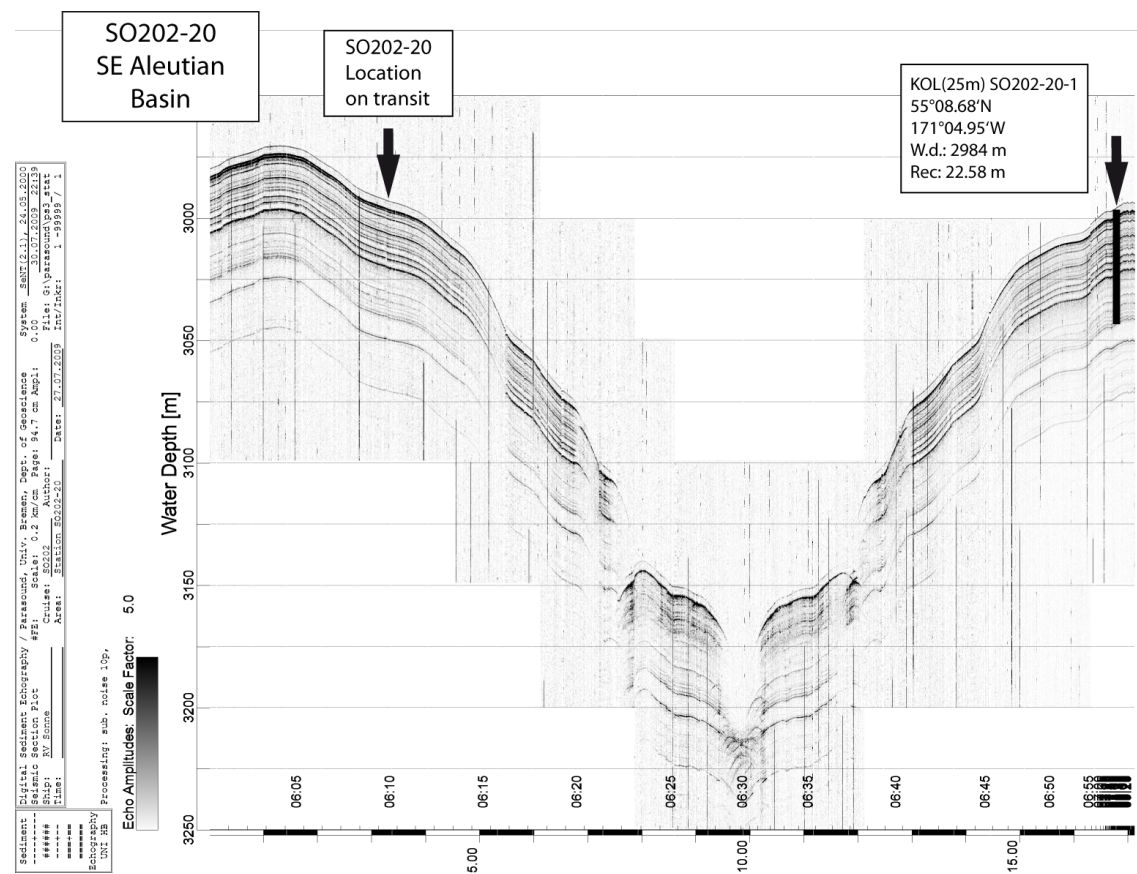


Fig. A.6-20

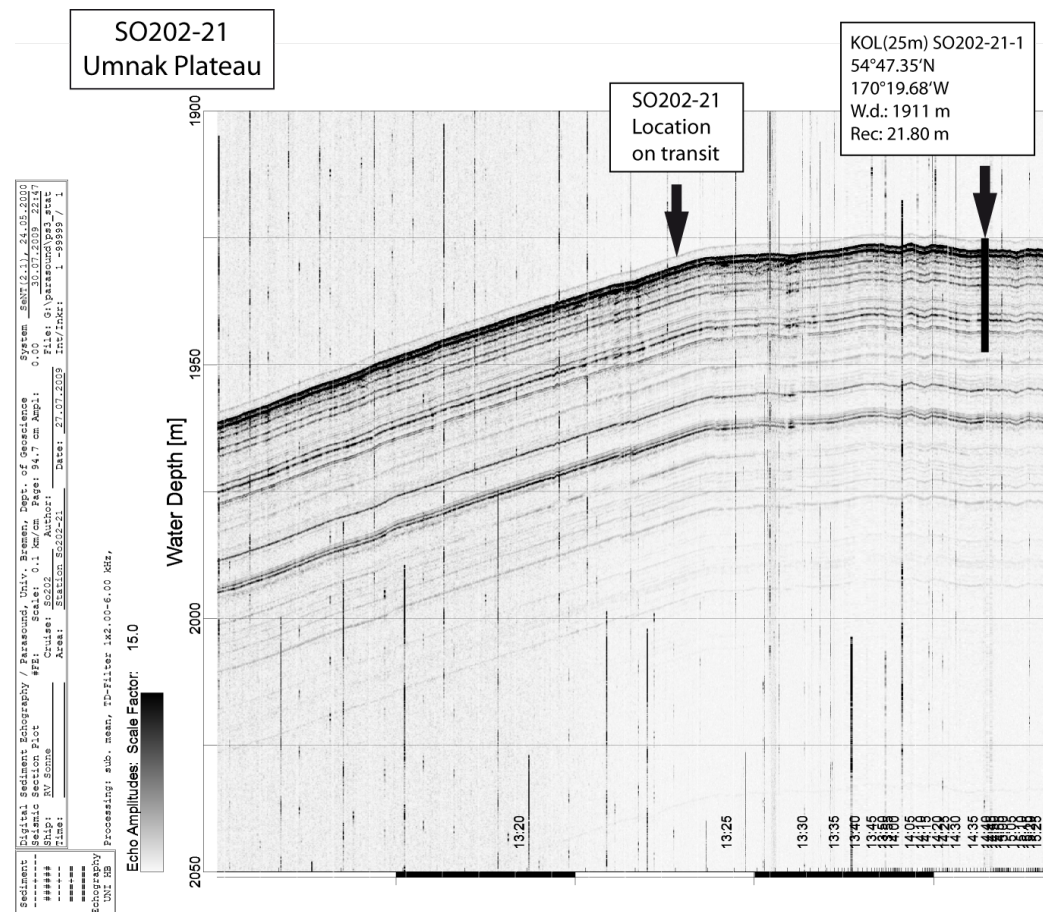


Fig. A.6-21

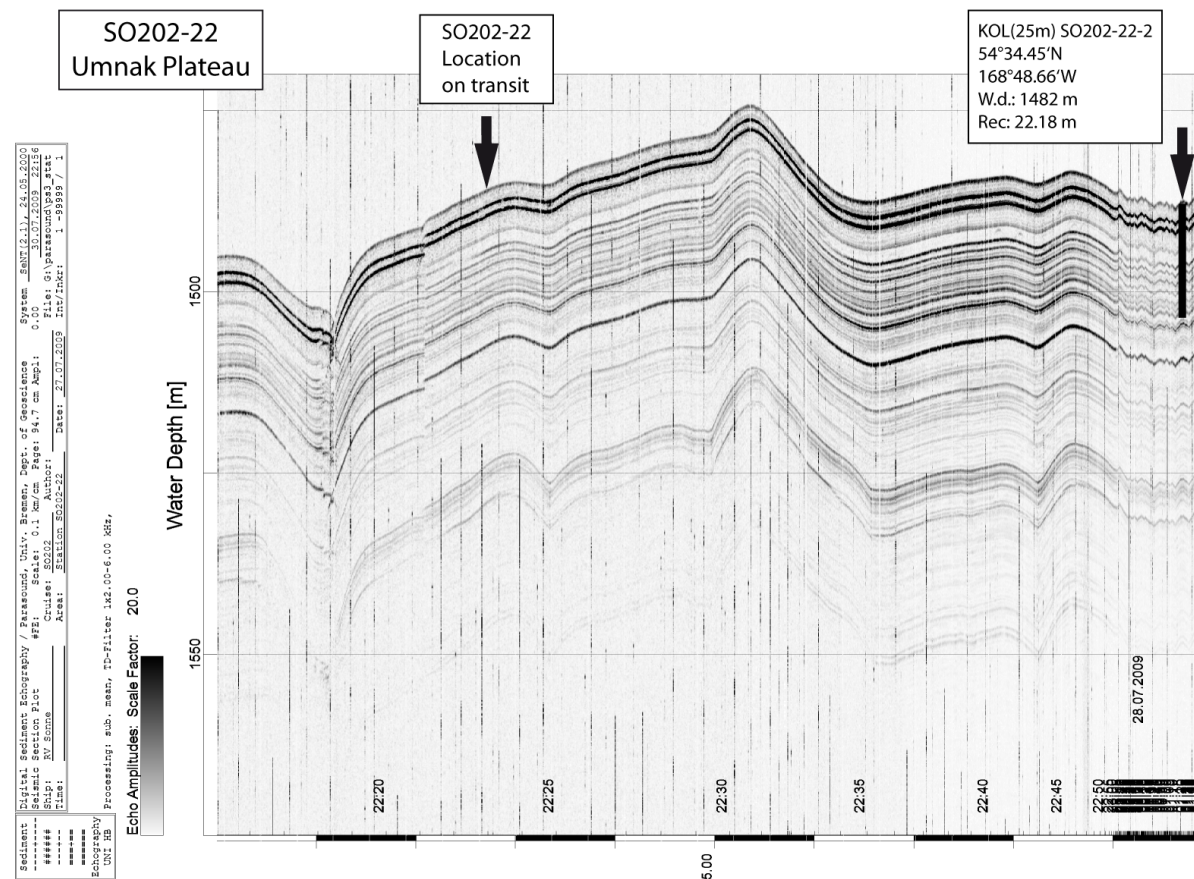


Fig. A.6-22

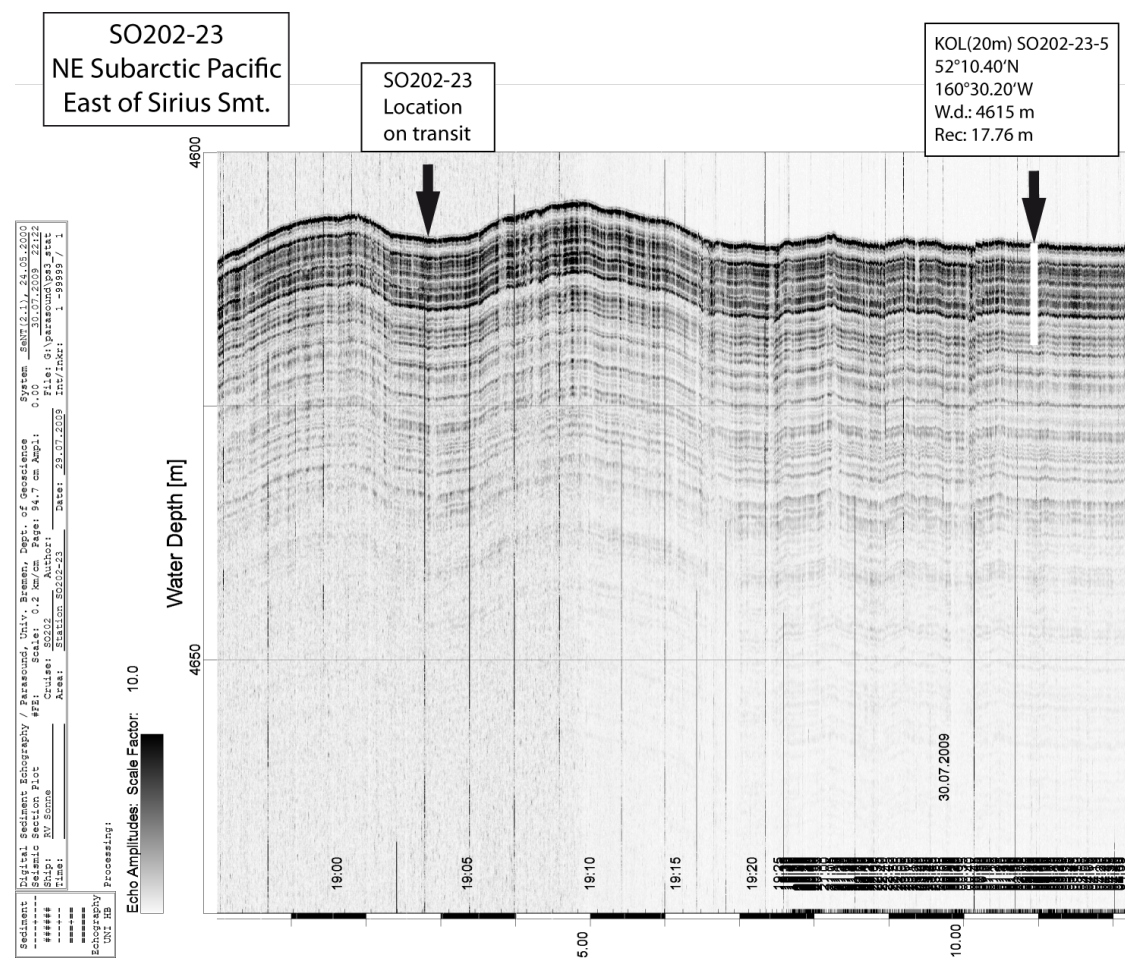


Fig. A.6-23

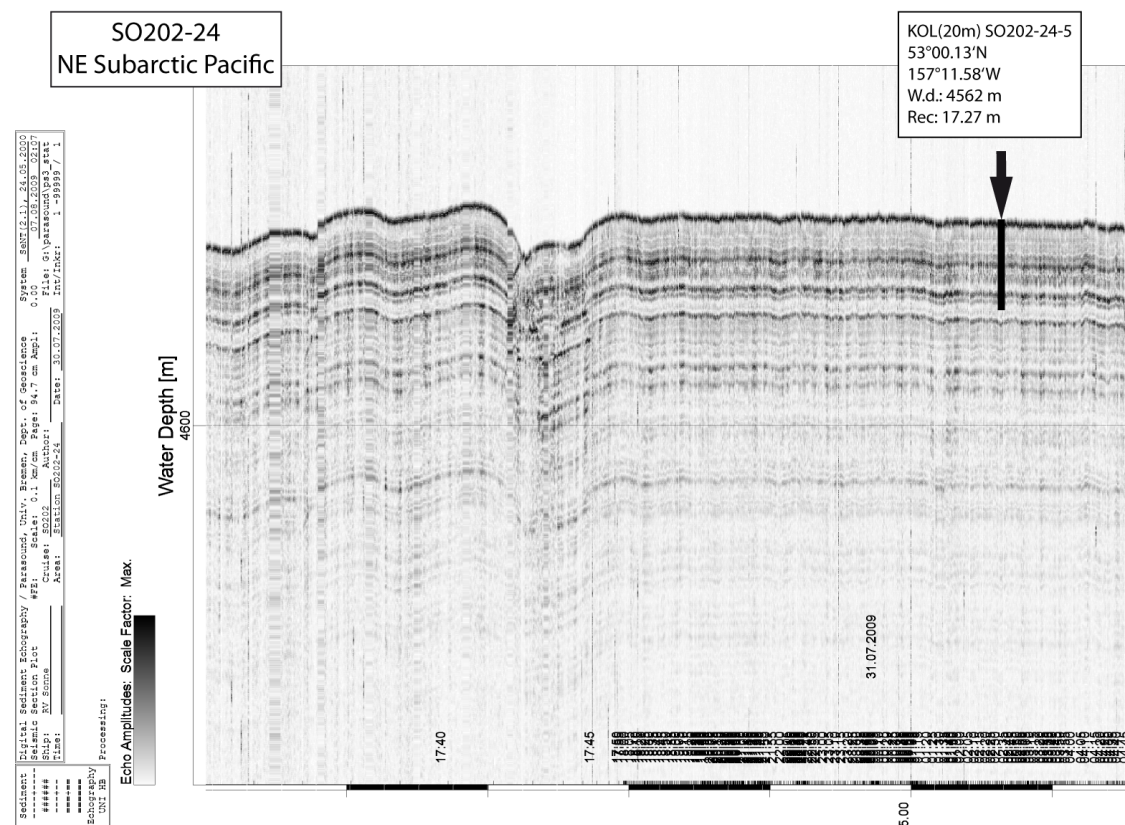


Fig. A.6-24

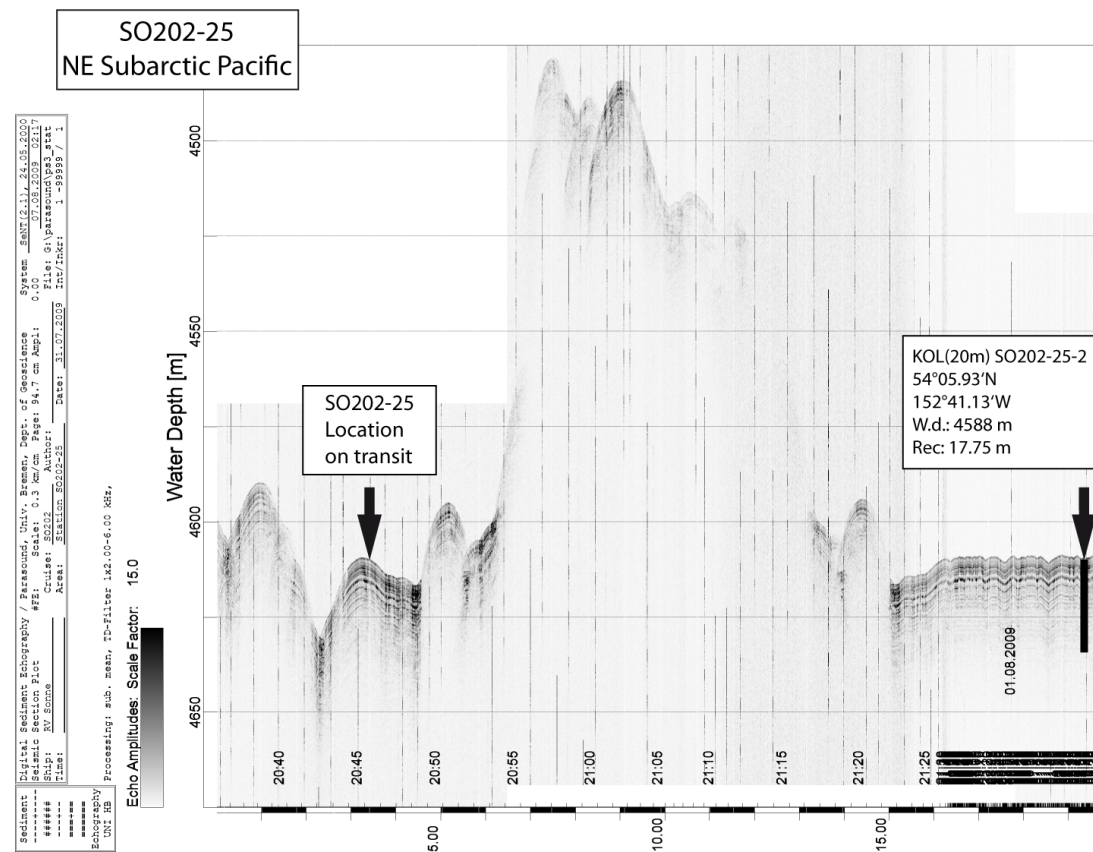


Fig. A.6-25a

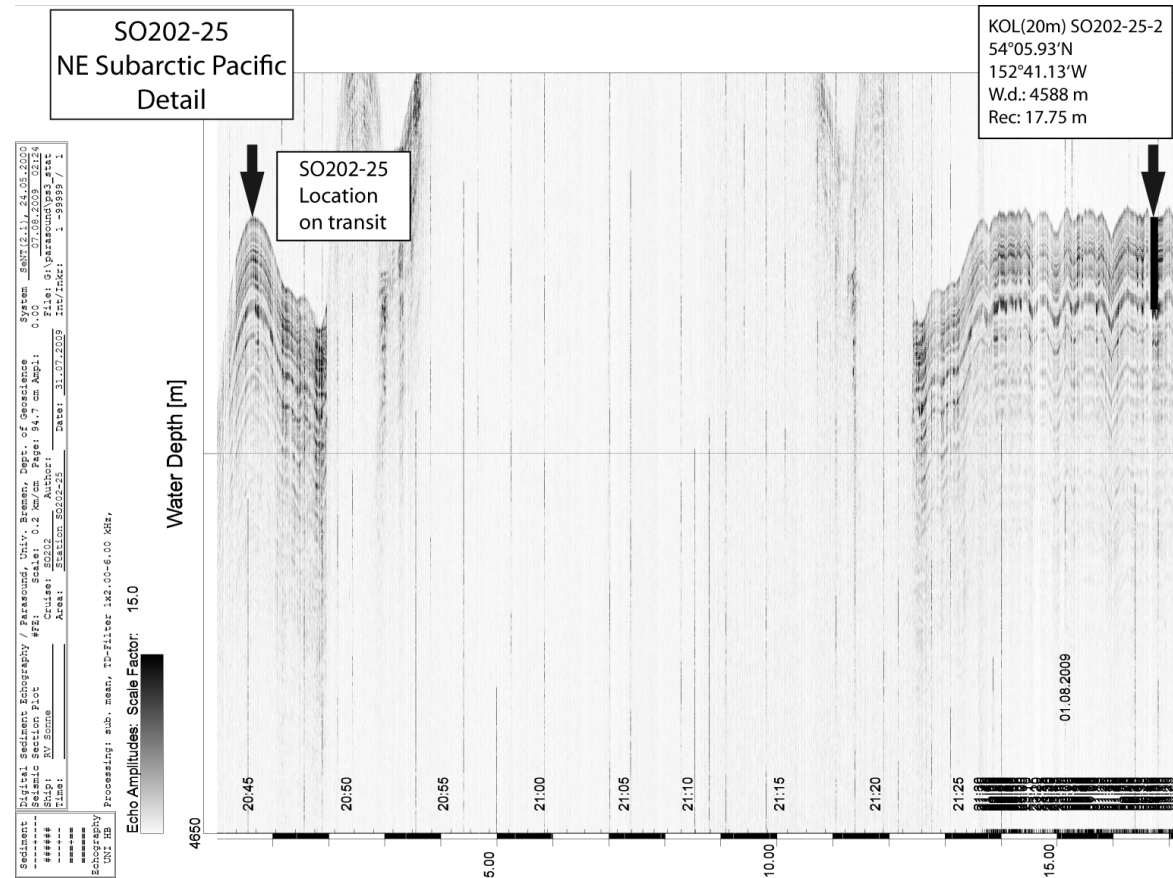


Fig. A.6-25b

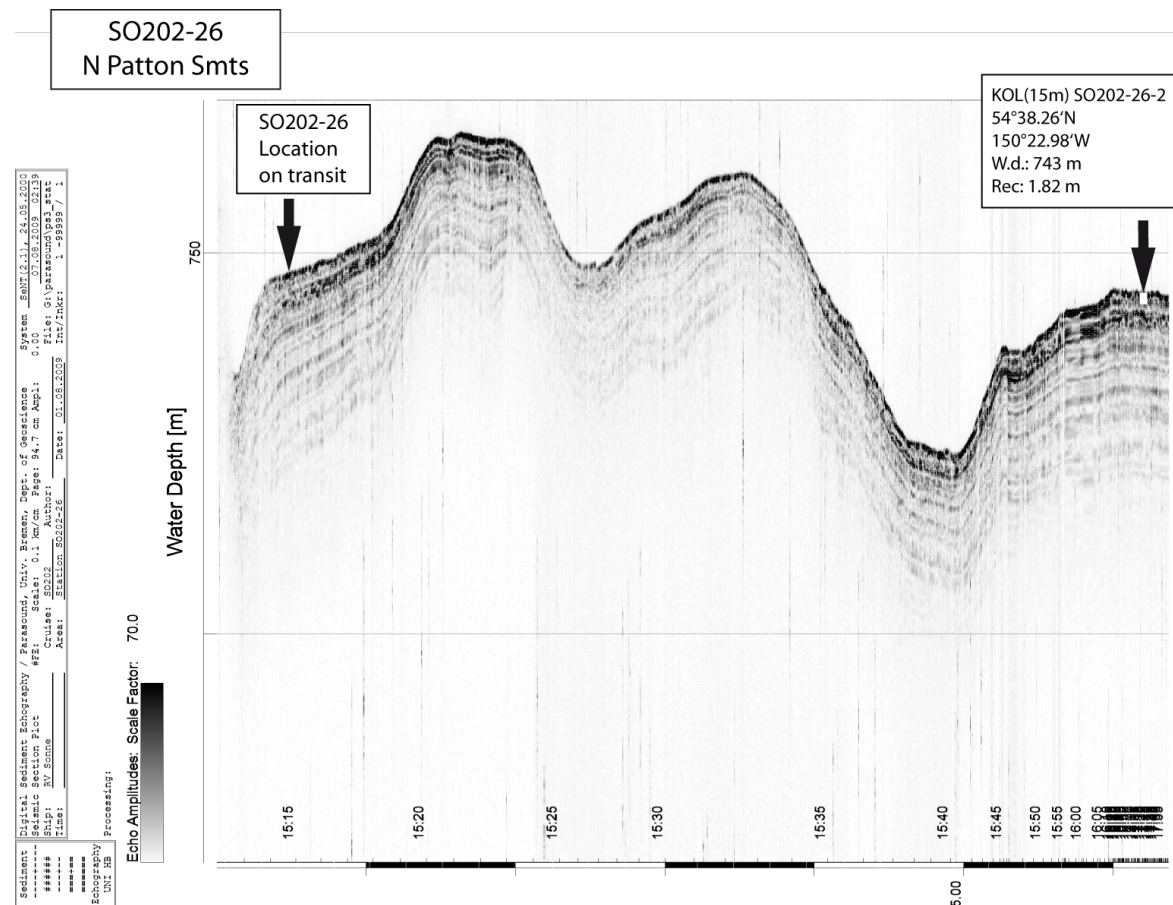


Fig. A.6-26

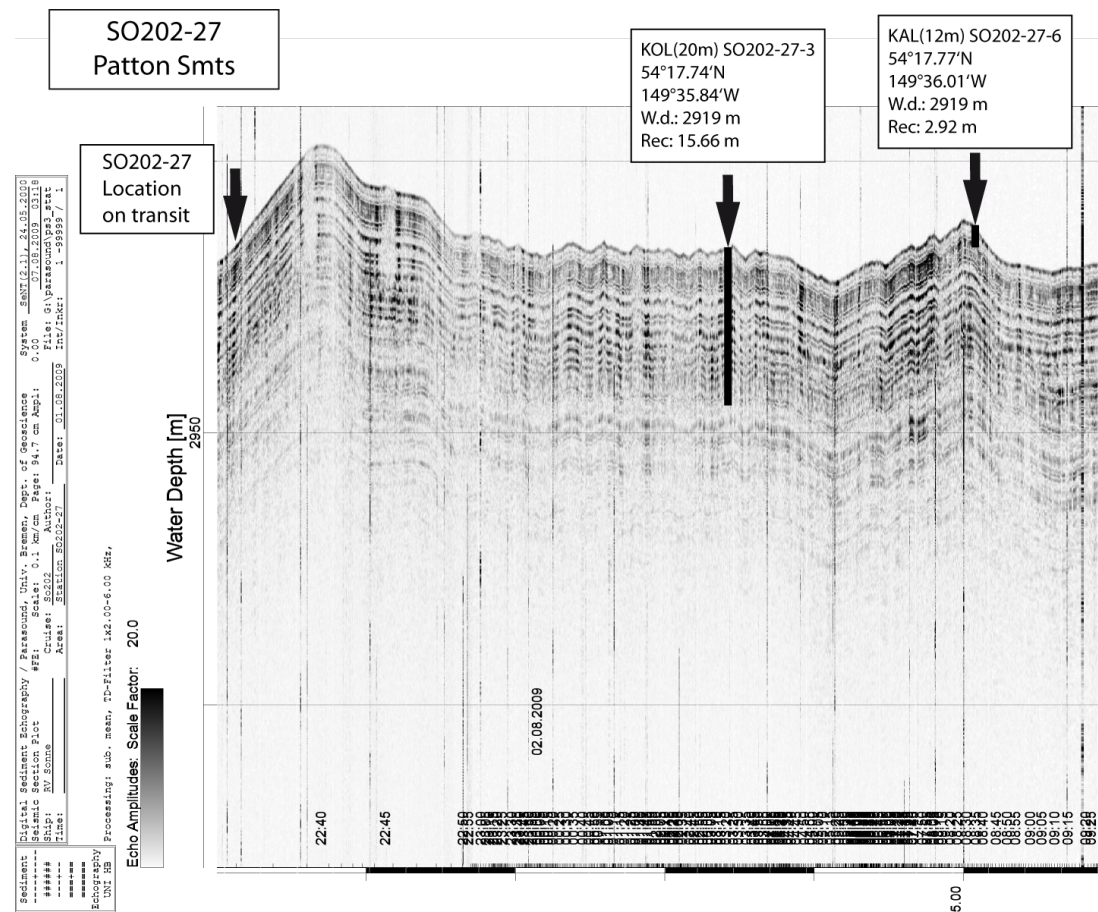


Fig. A.6-27

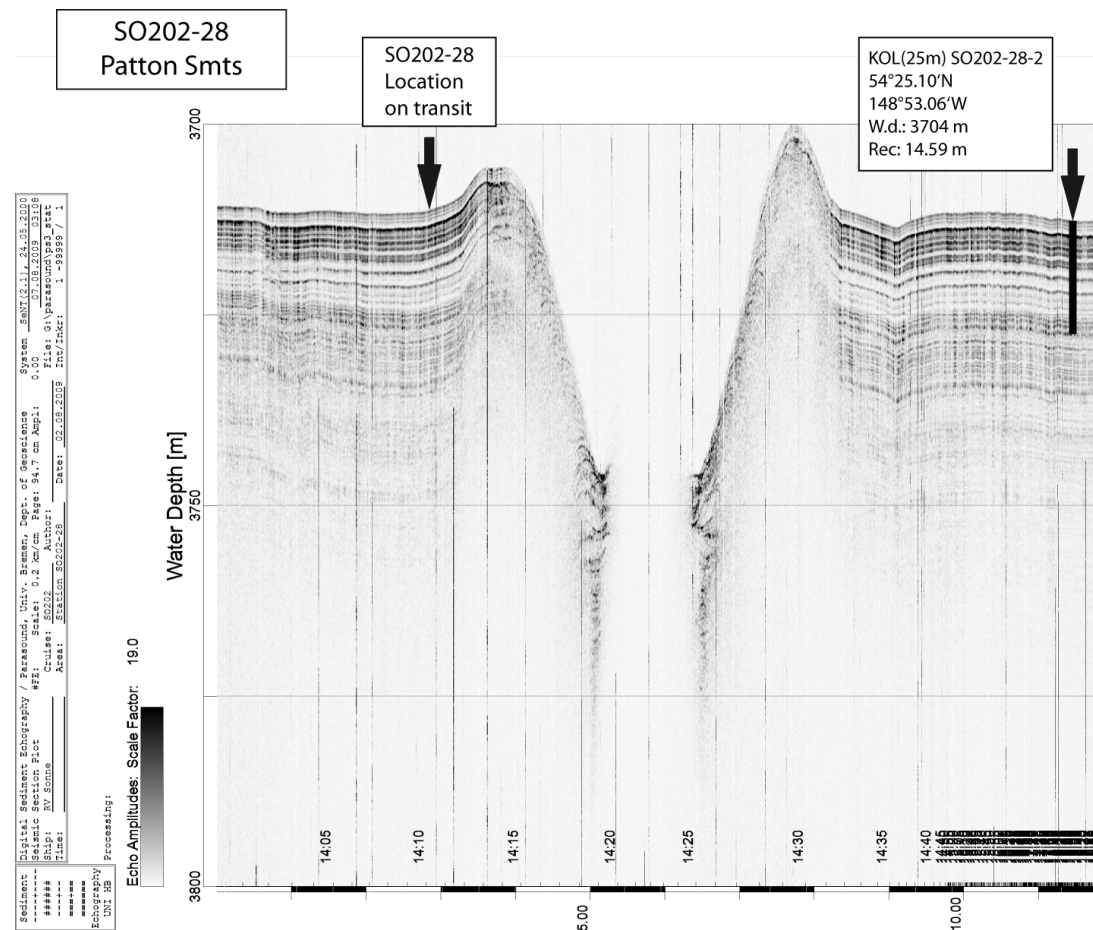


Fig. A.6-28

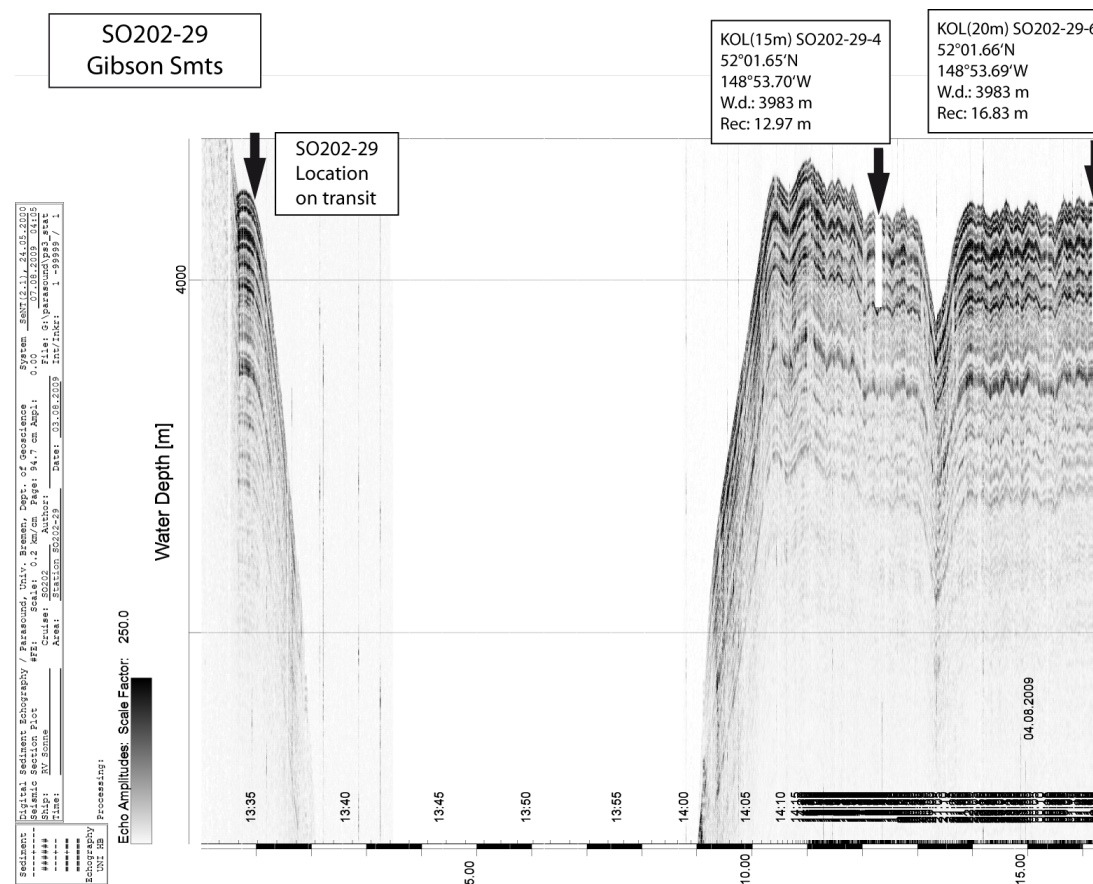


Fig. A.6-29

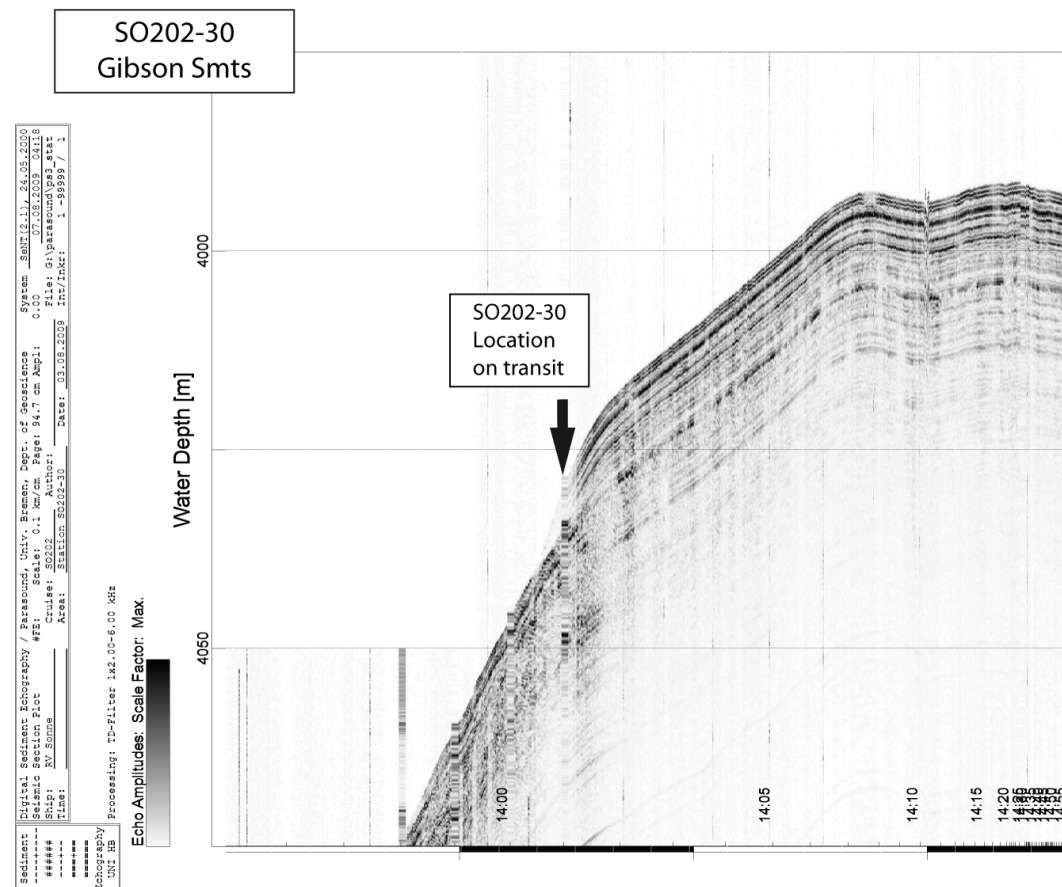


Fig. A.6-30a

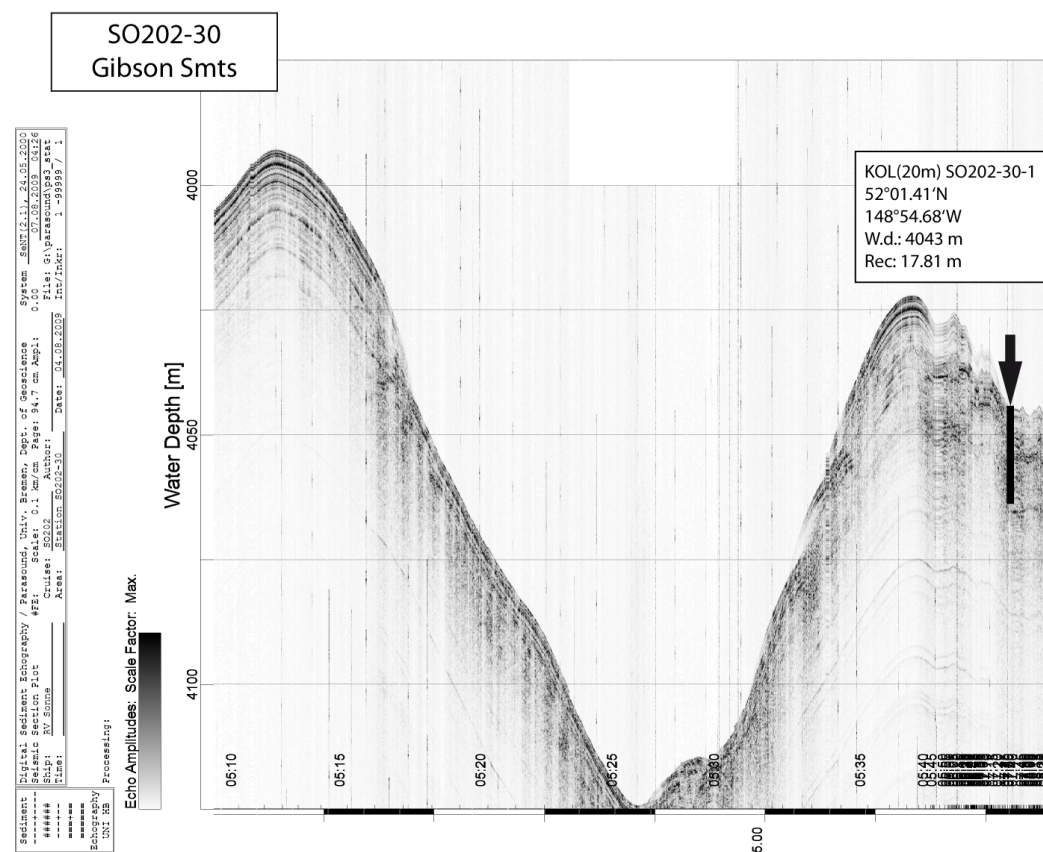
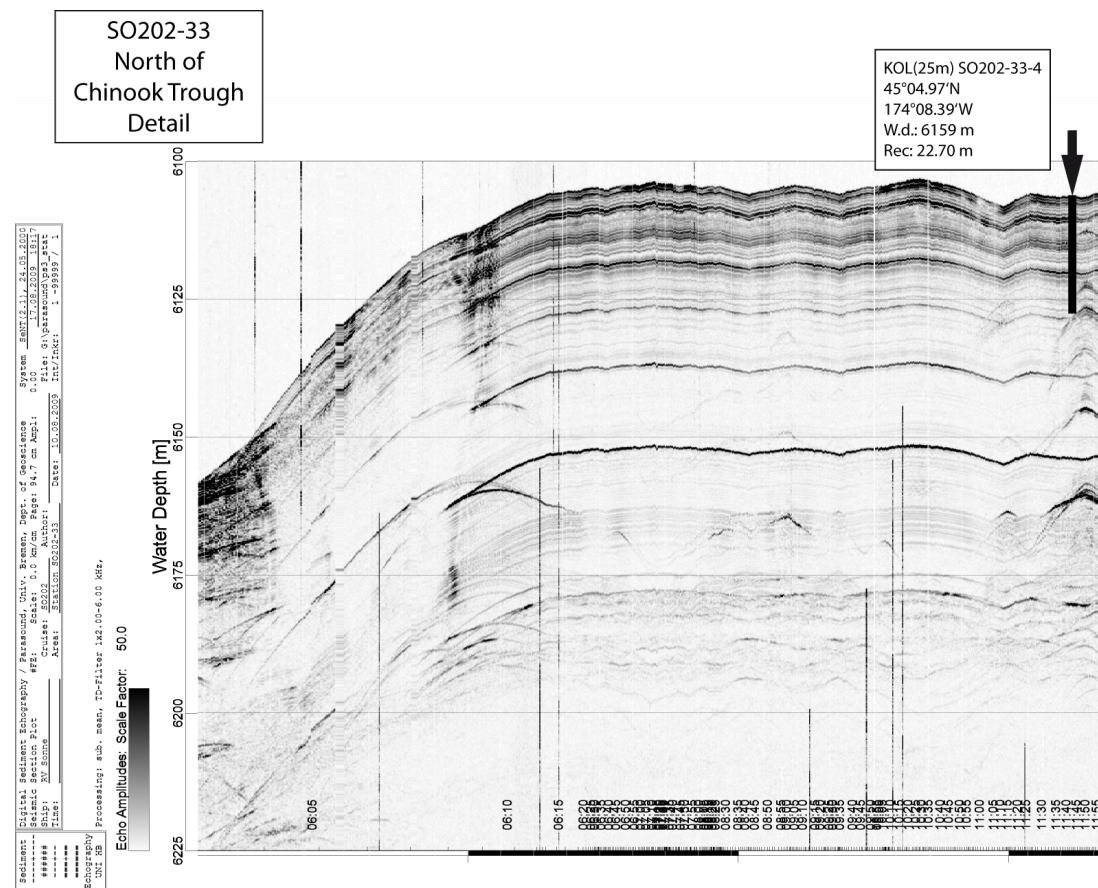
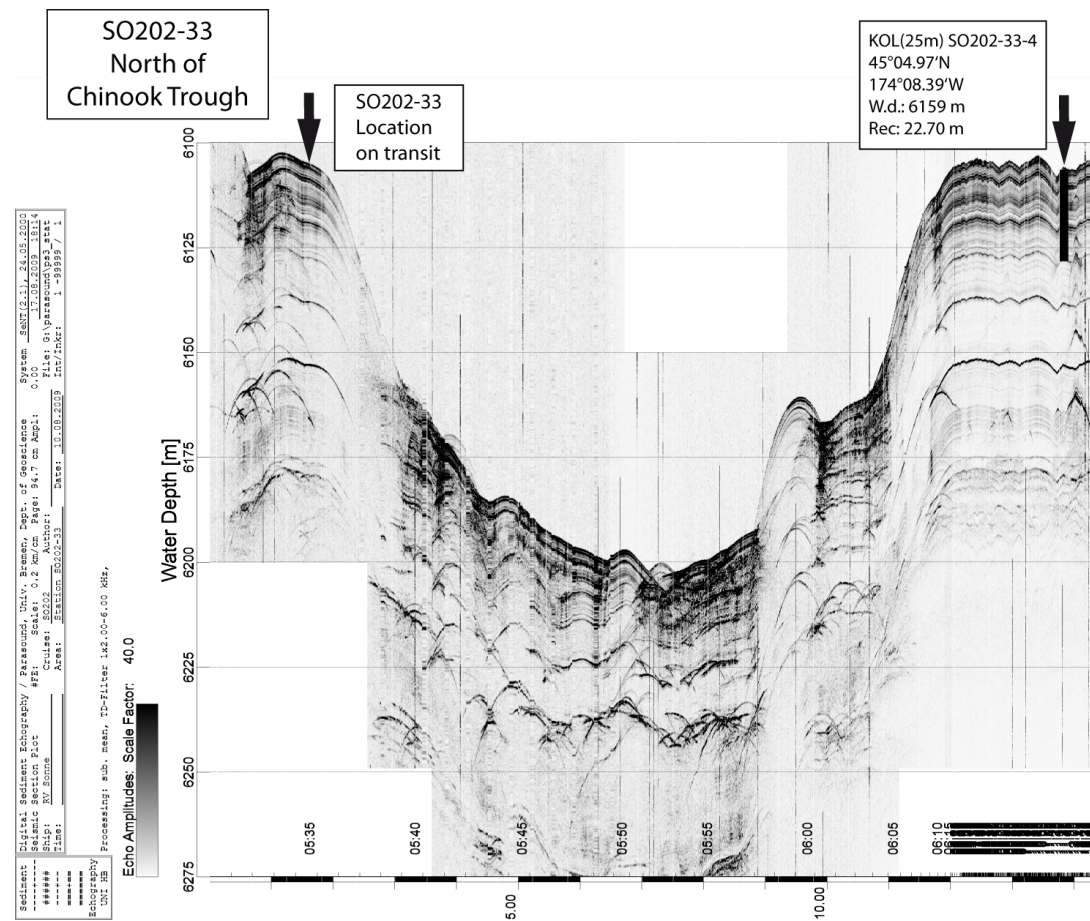


Fig. A.6-30b



SO202-34
East of southern
Emperor Trough

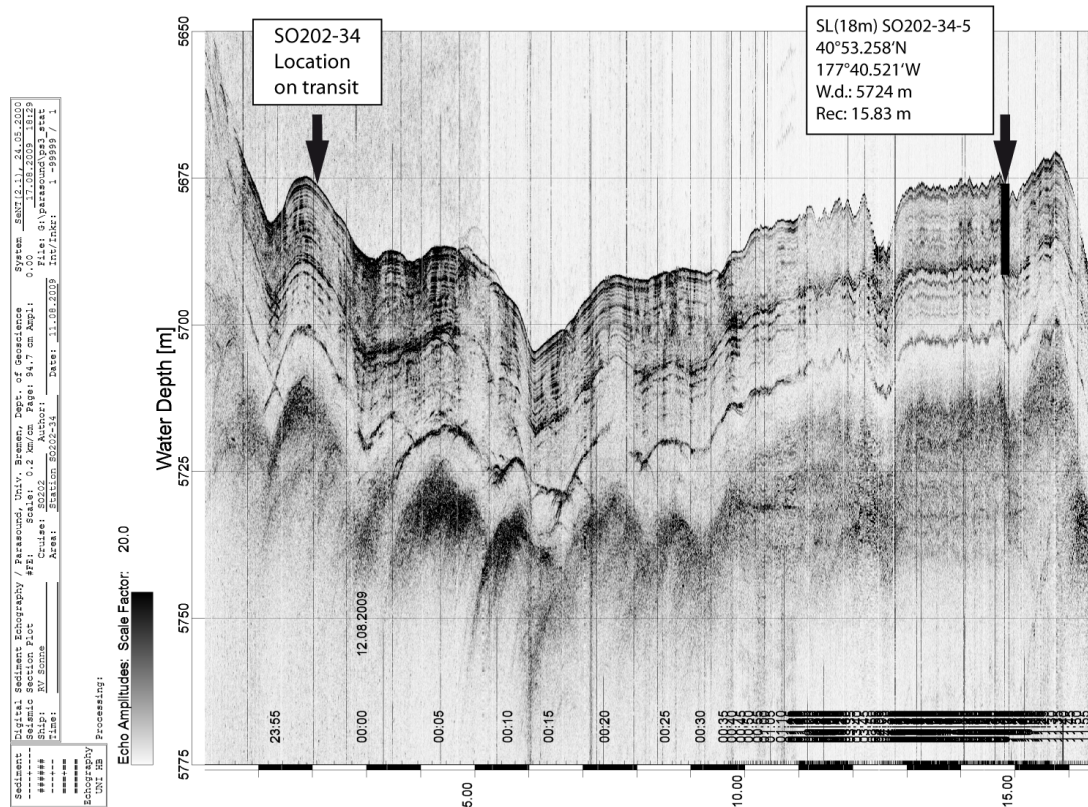


Fig. A.6-34

SO202-35
West of southern
Emperor Trough

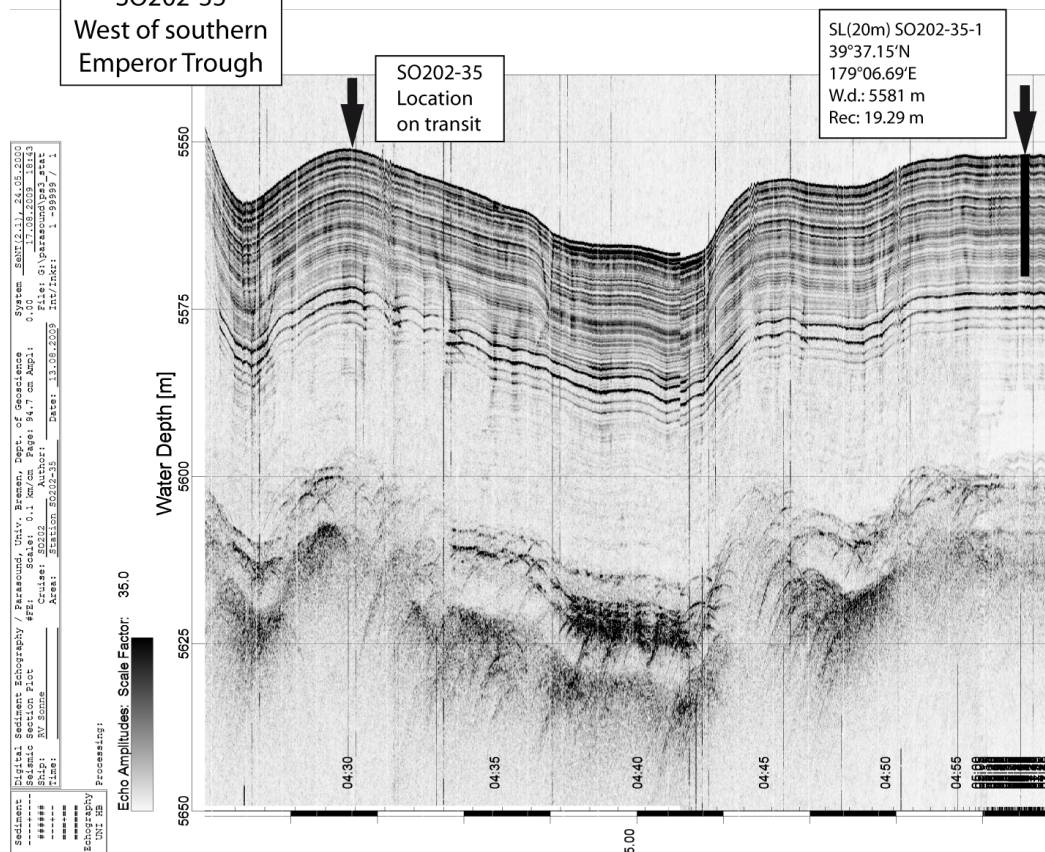


Fig. A.6-35

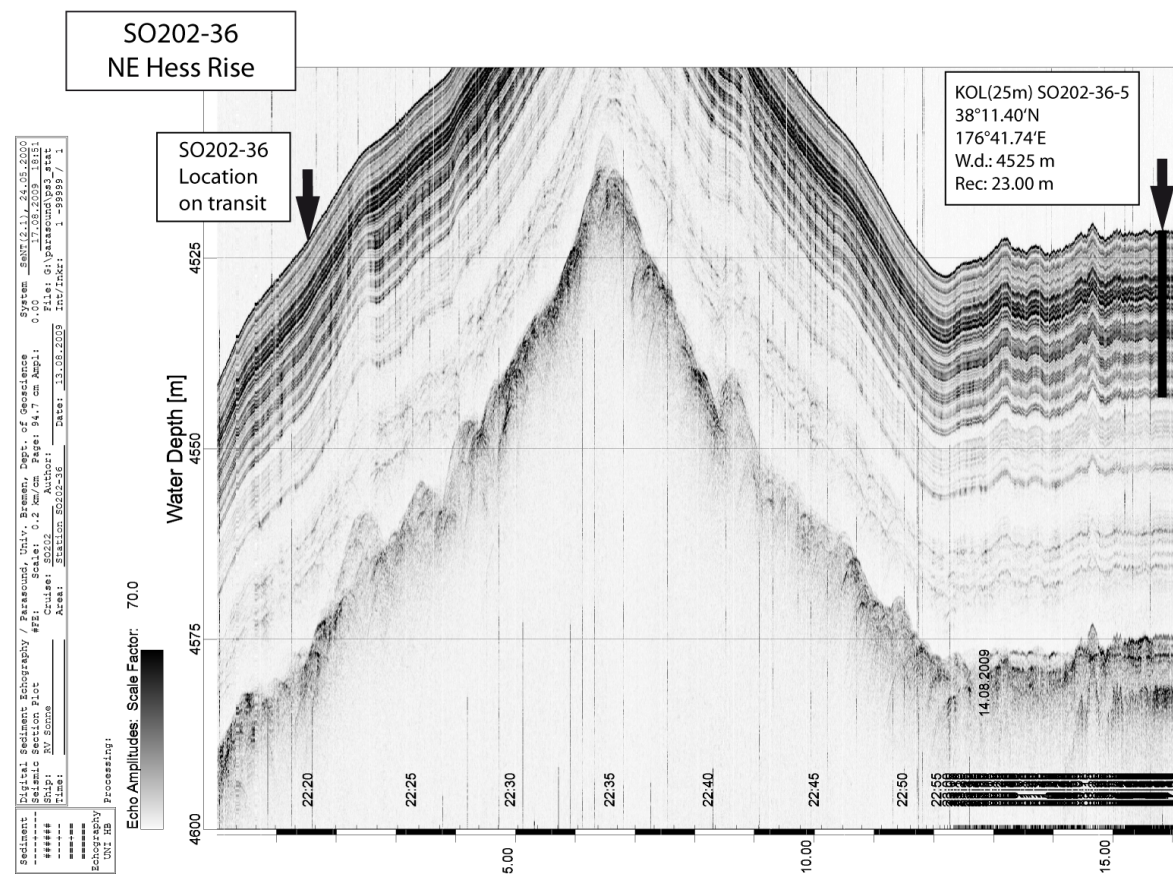


Fig. A.6-36

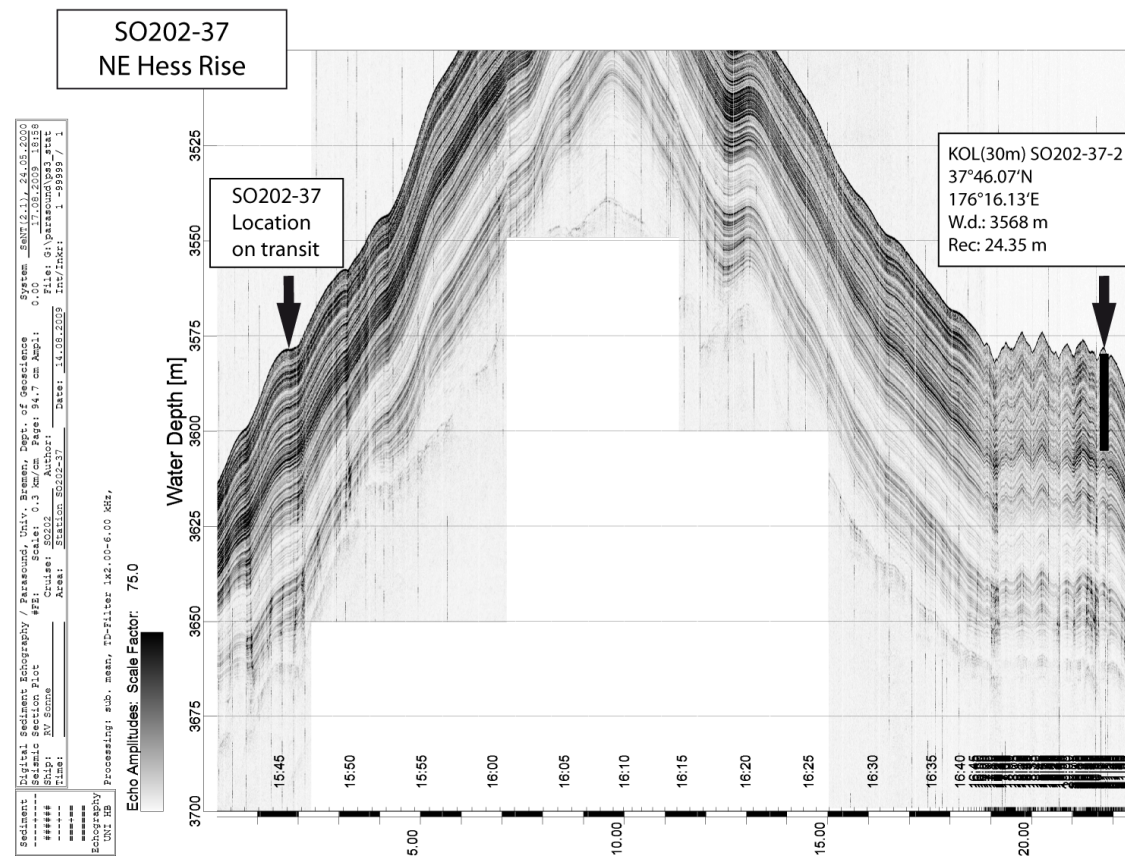


Fig. A.6-37

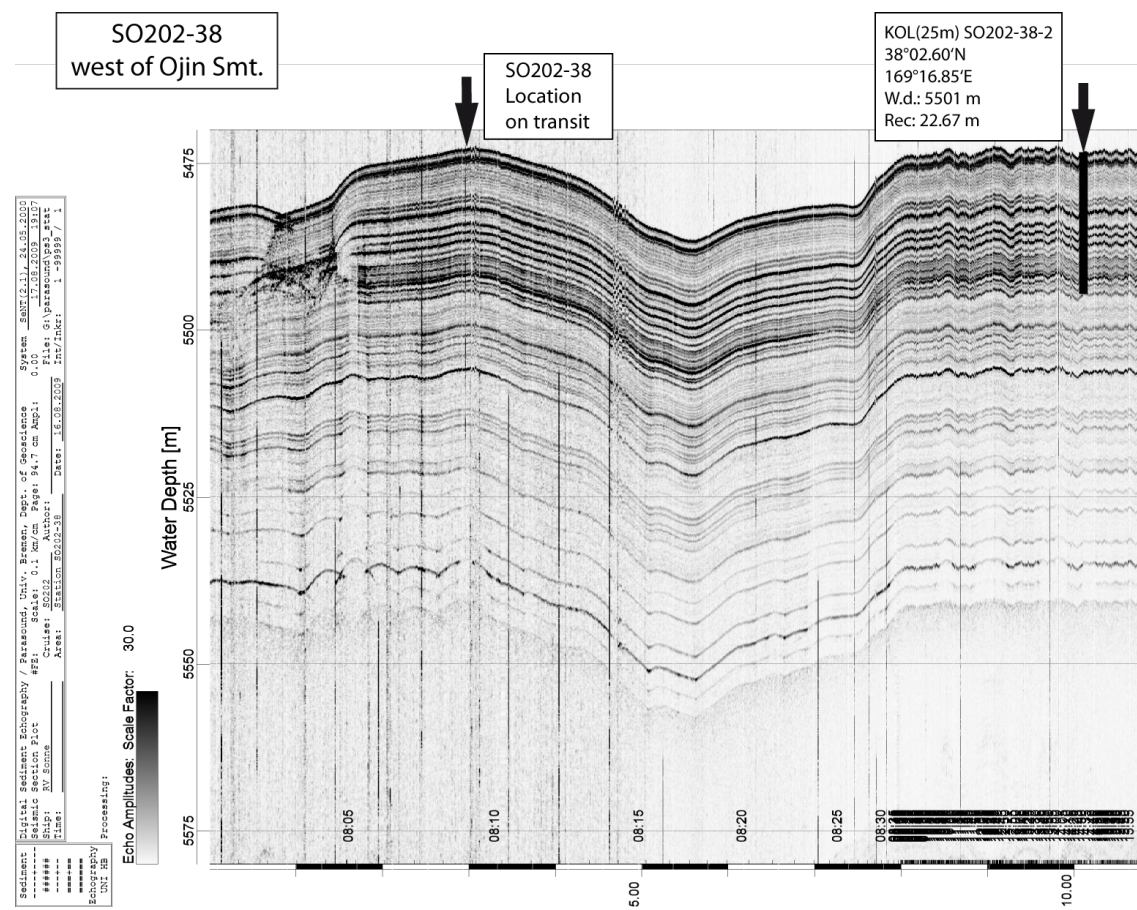


Fig. A.6-38

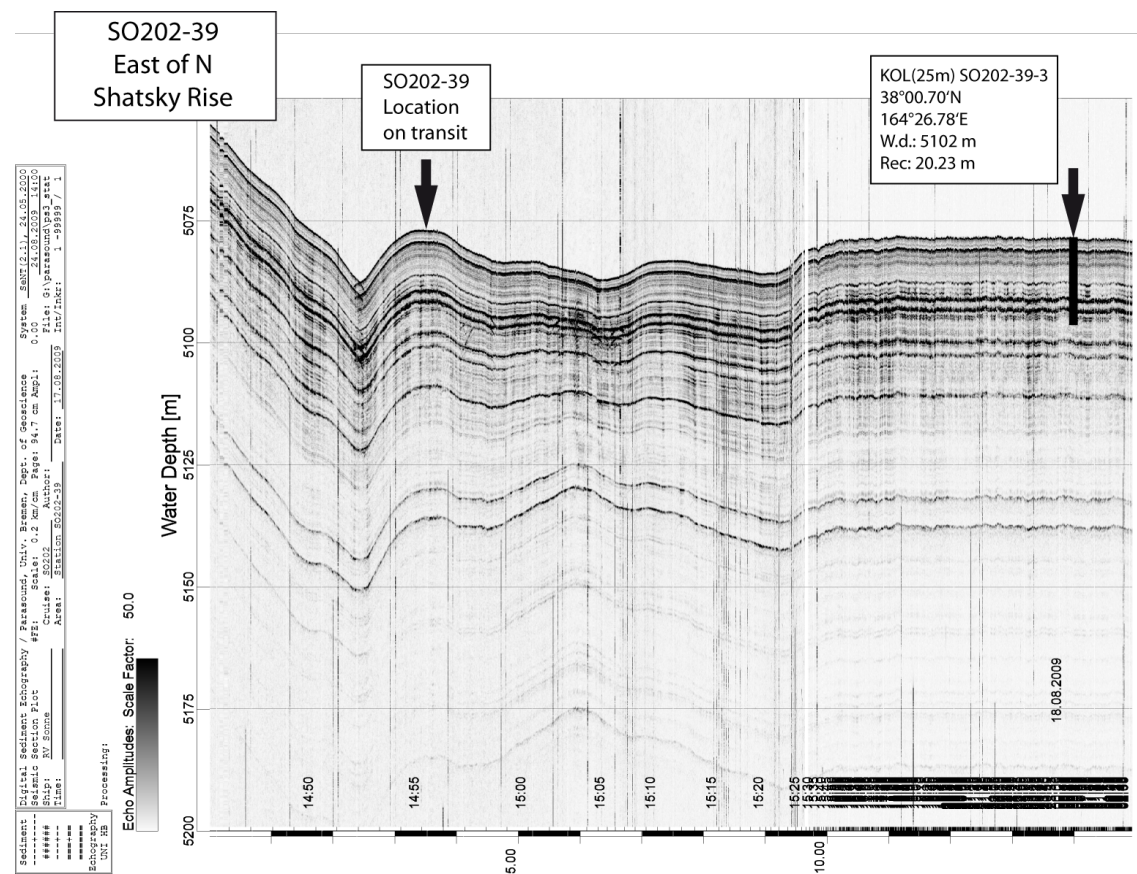


Fig. A.6-39

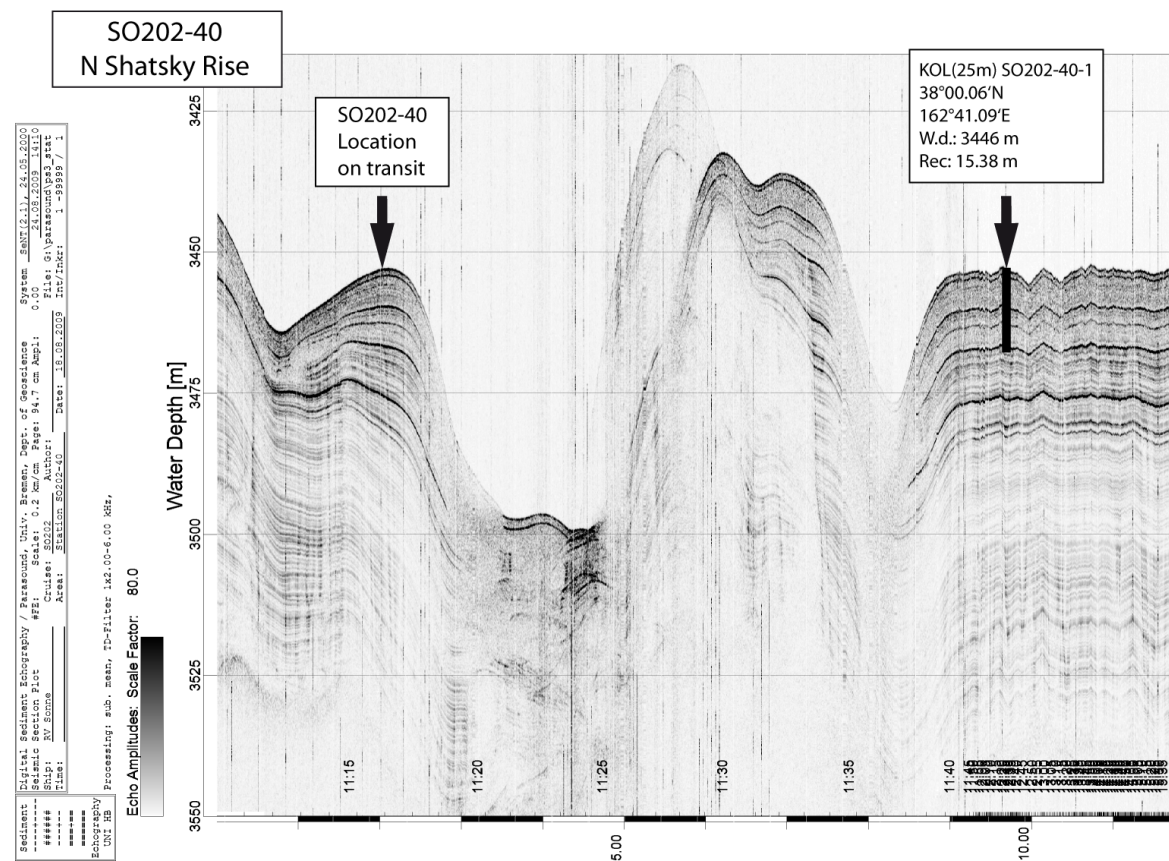


Fig. A.6-40

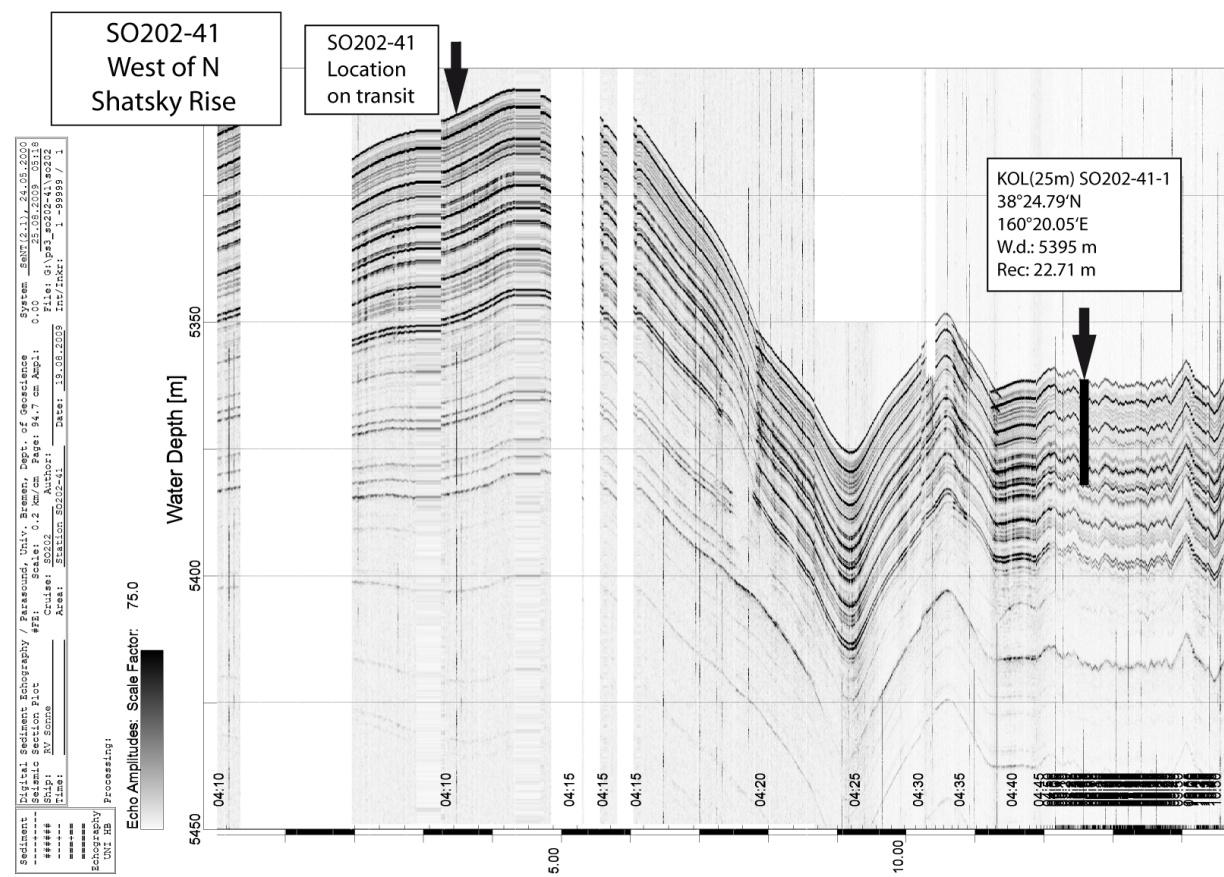


Fig. A.6-41

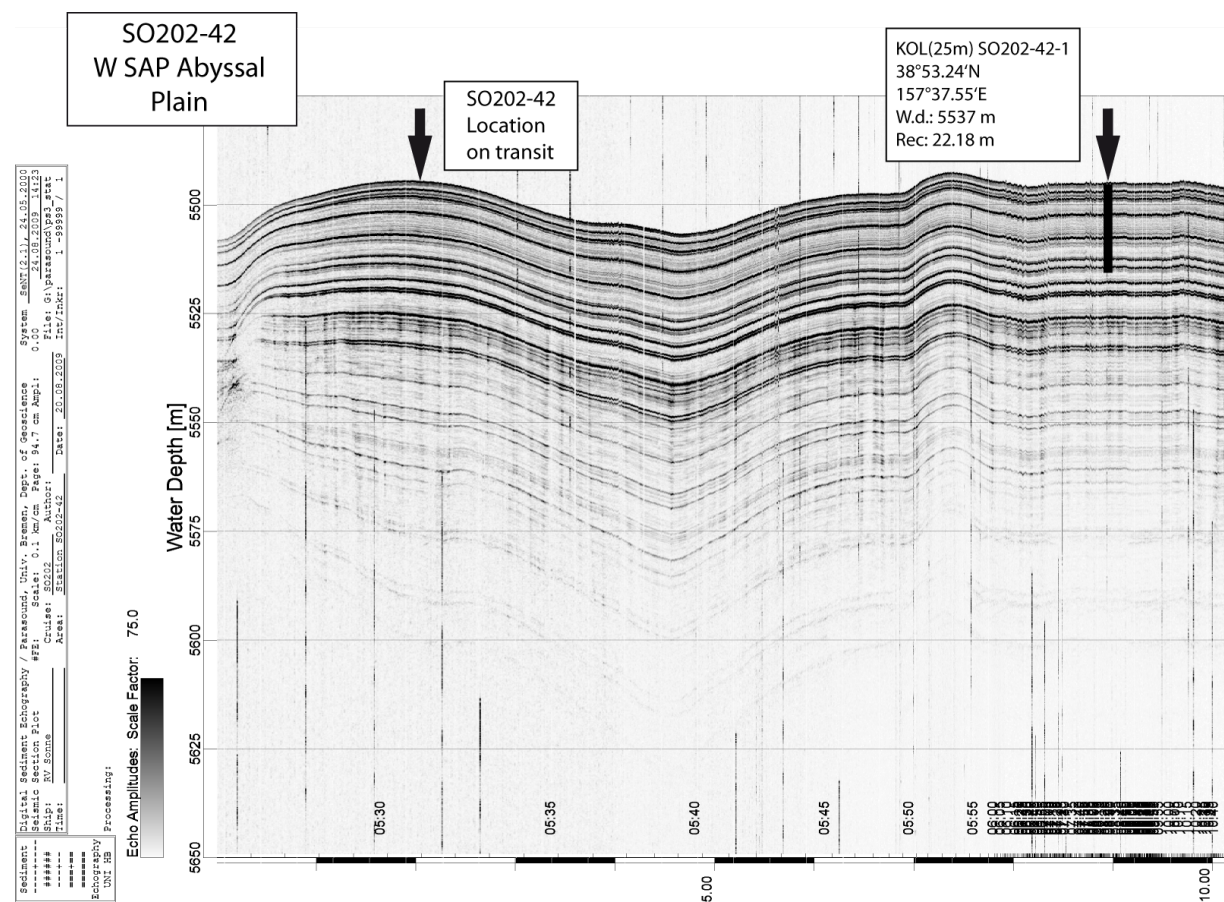


Fig. A.6-42

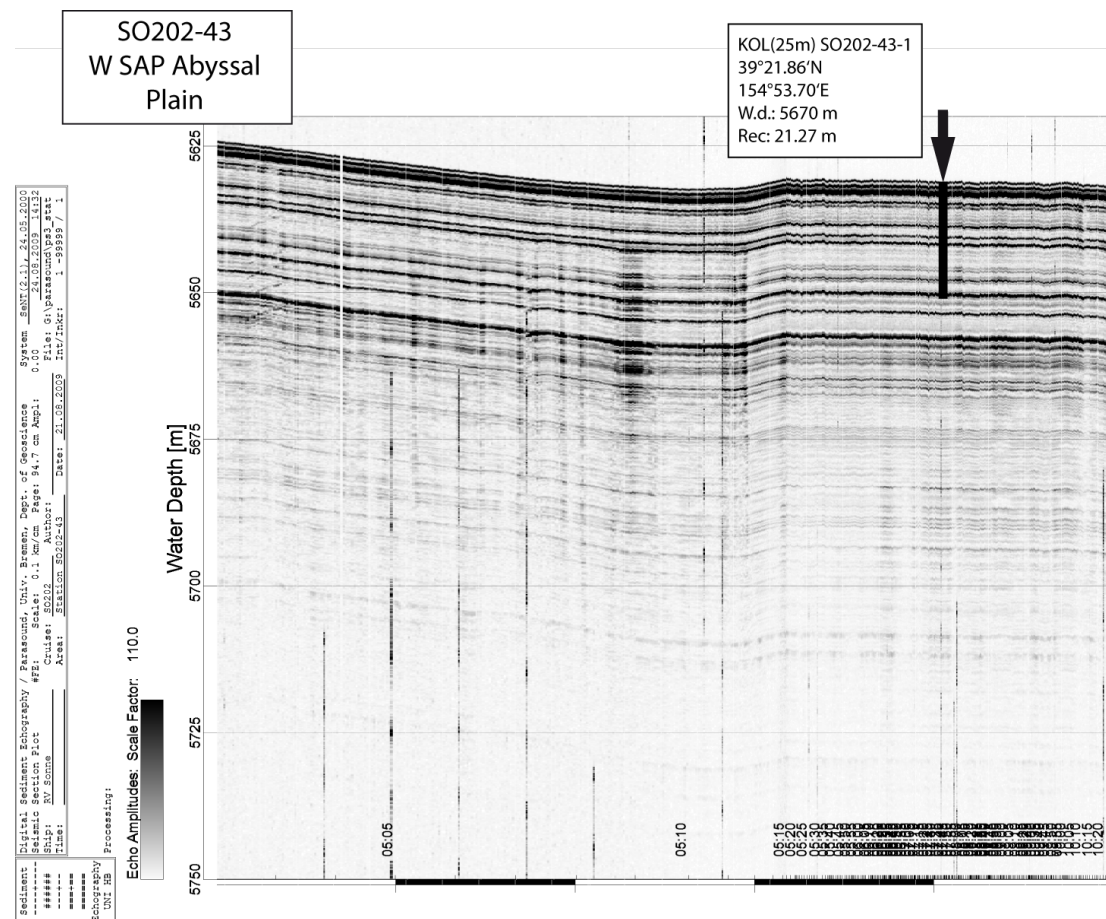


Fig. A.6-43

A.7 SO202-INOPEX DAY BY DAY BATHYMETRIC RESULTS

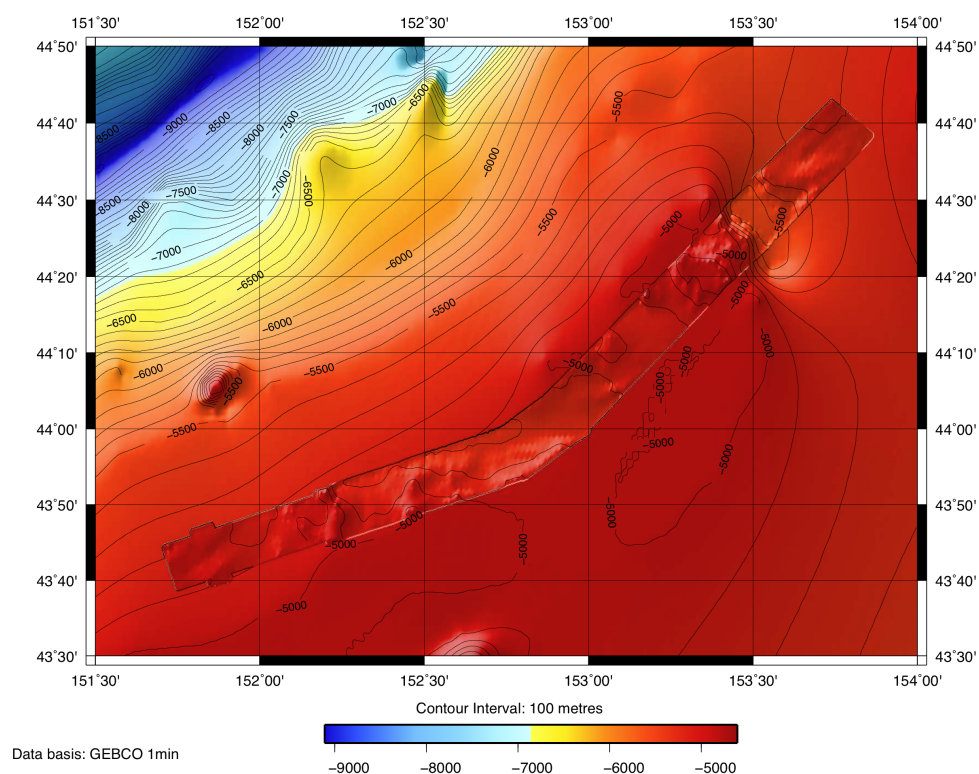


Fig. A.7-1 Bathymetric map day 10.7.2009 (scale 1:1.000.000)

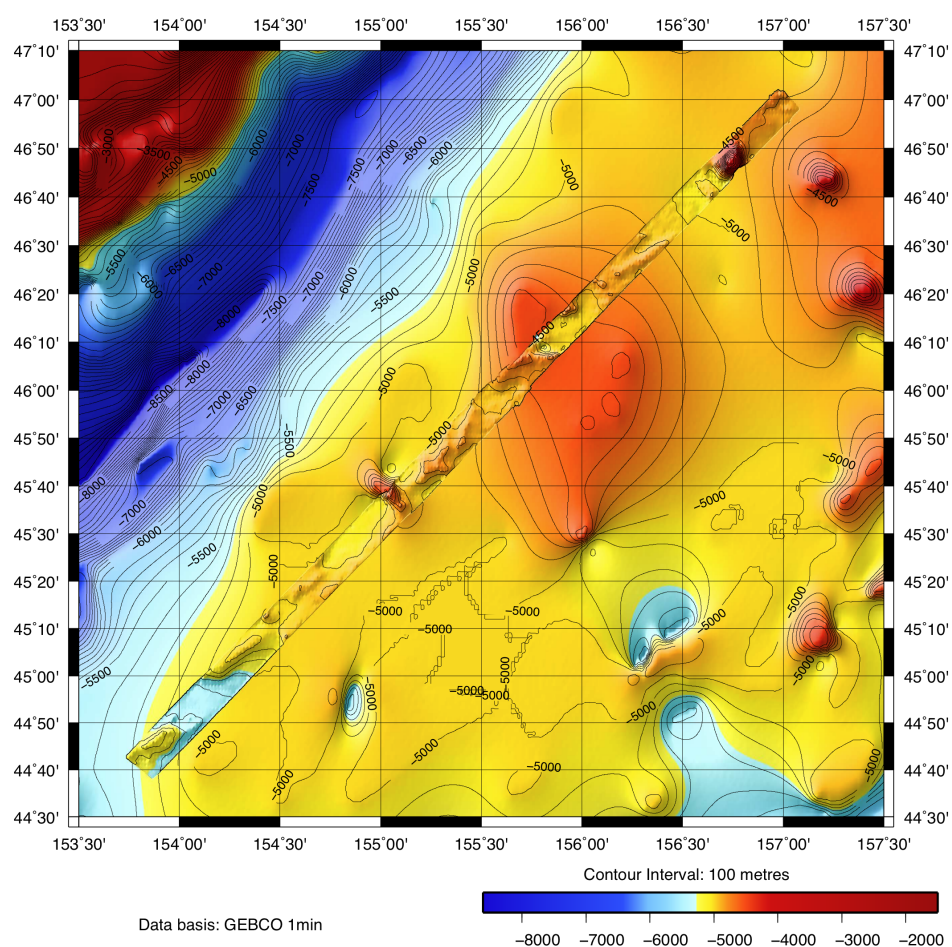


Fig. A.7-2 Bathymetric map day 11.7.2009 (scale 1:1.800.000)

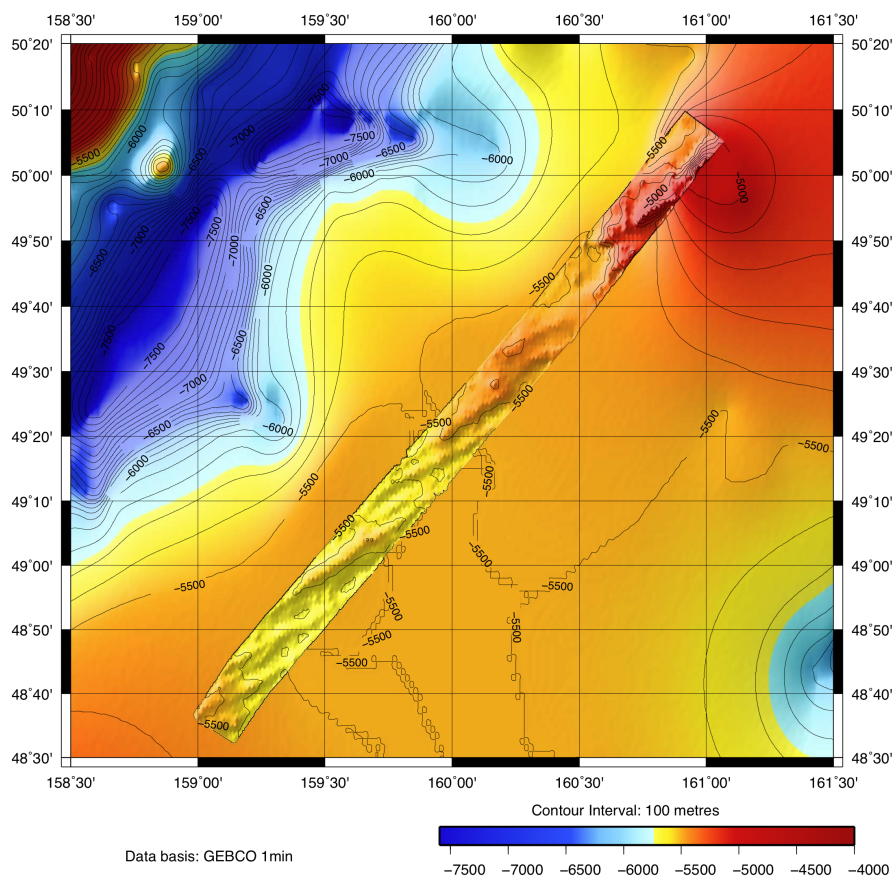


Fig. A.7-3 Bathymetric map day 13.7.2009 (scale 1:1.300.000)

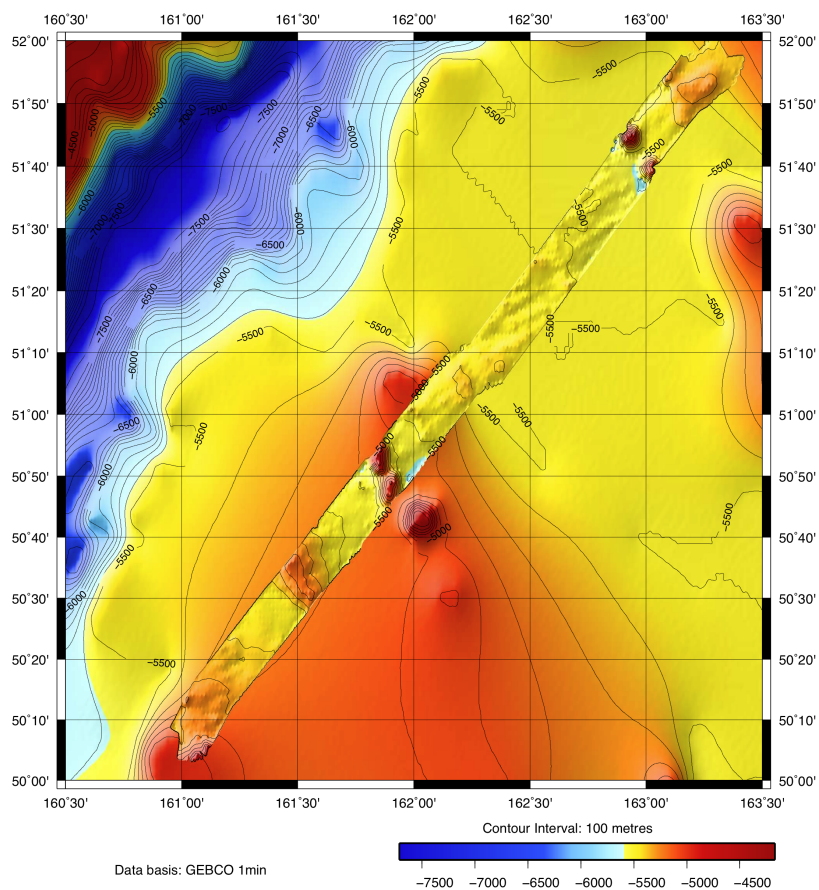


Fig. A.7-4 Bathymetric map day 14.7.2009 (scale 1:1.200.000)

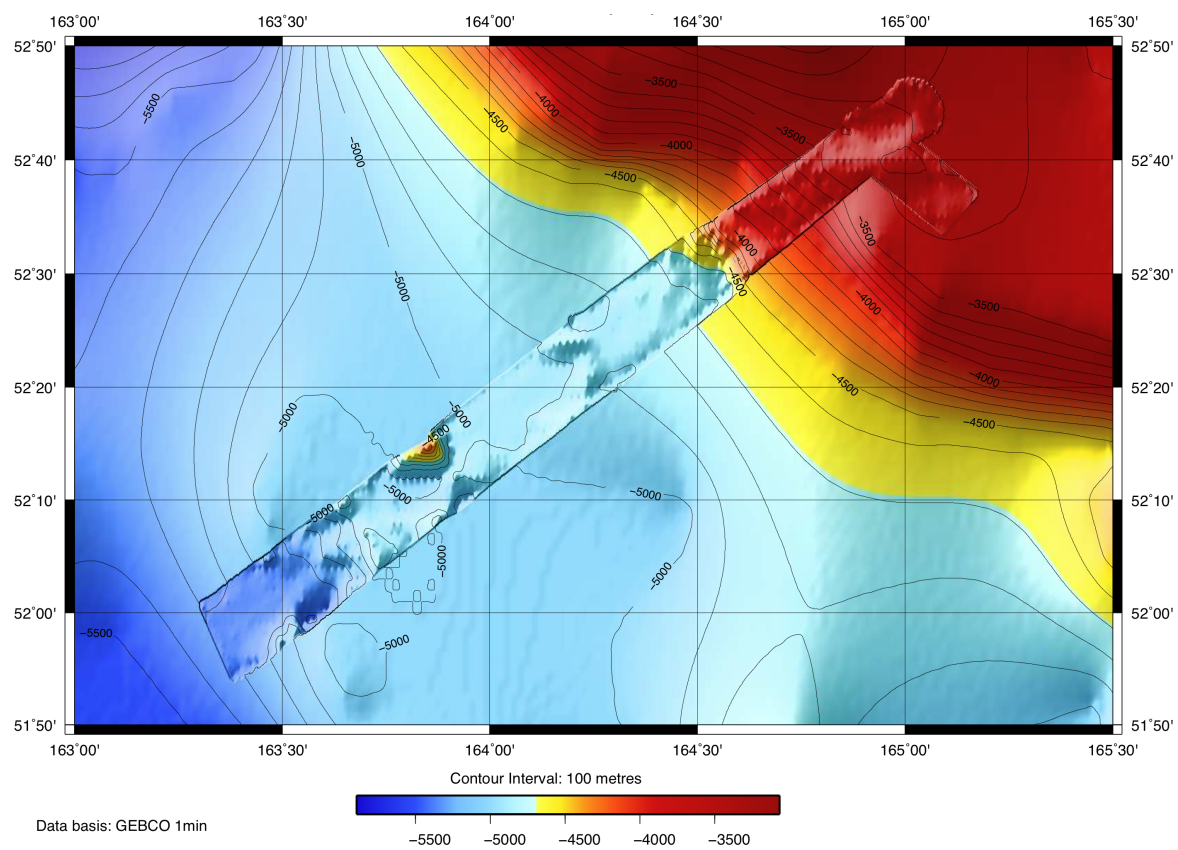


Fig. A.7-5 Bathymetric map day 15.7.2009 (scale 1:1.260.000)

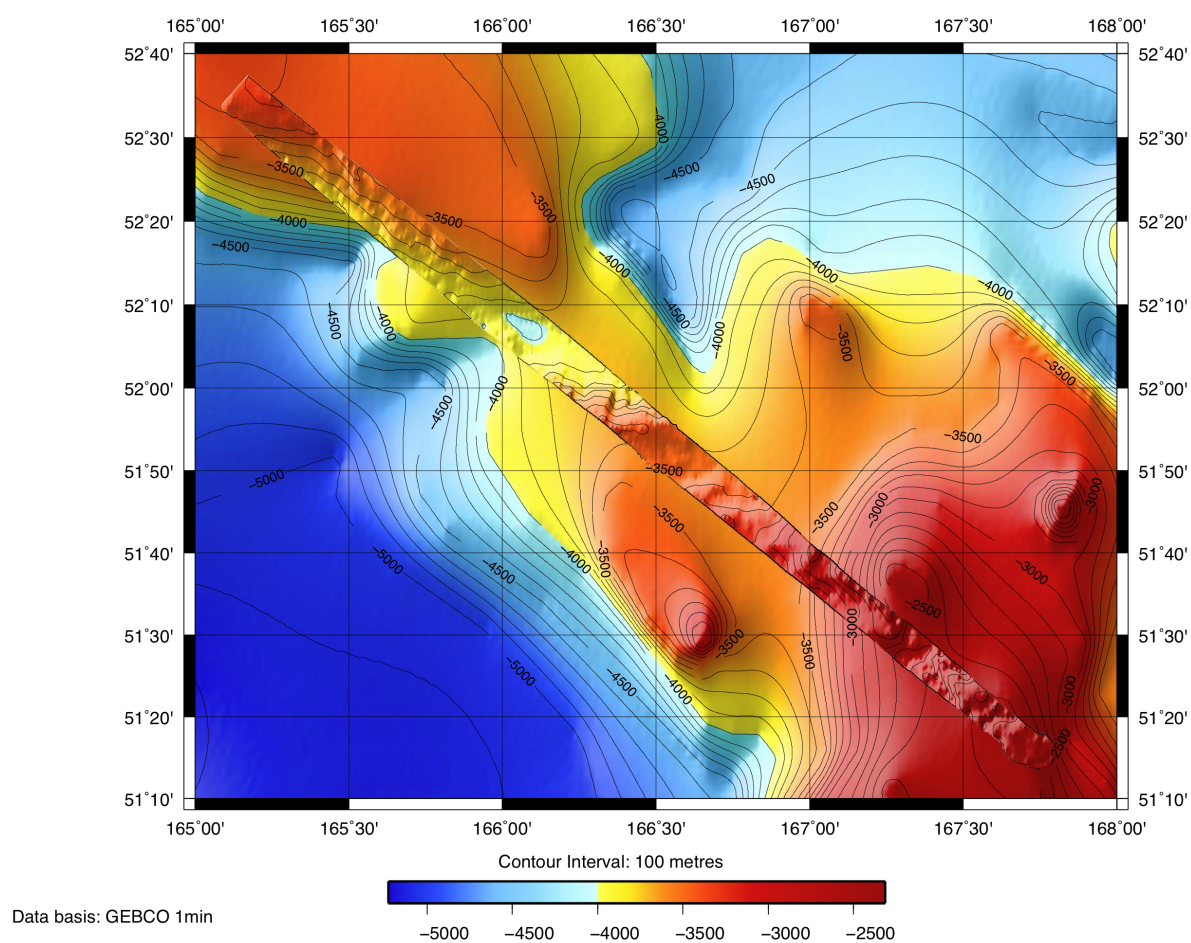


Fig. A.7-6 Bathymetric map day 16.7.2009 (scale 1:1.200.000)

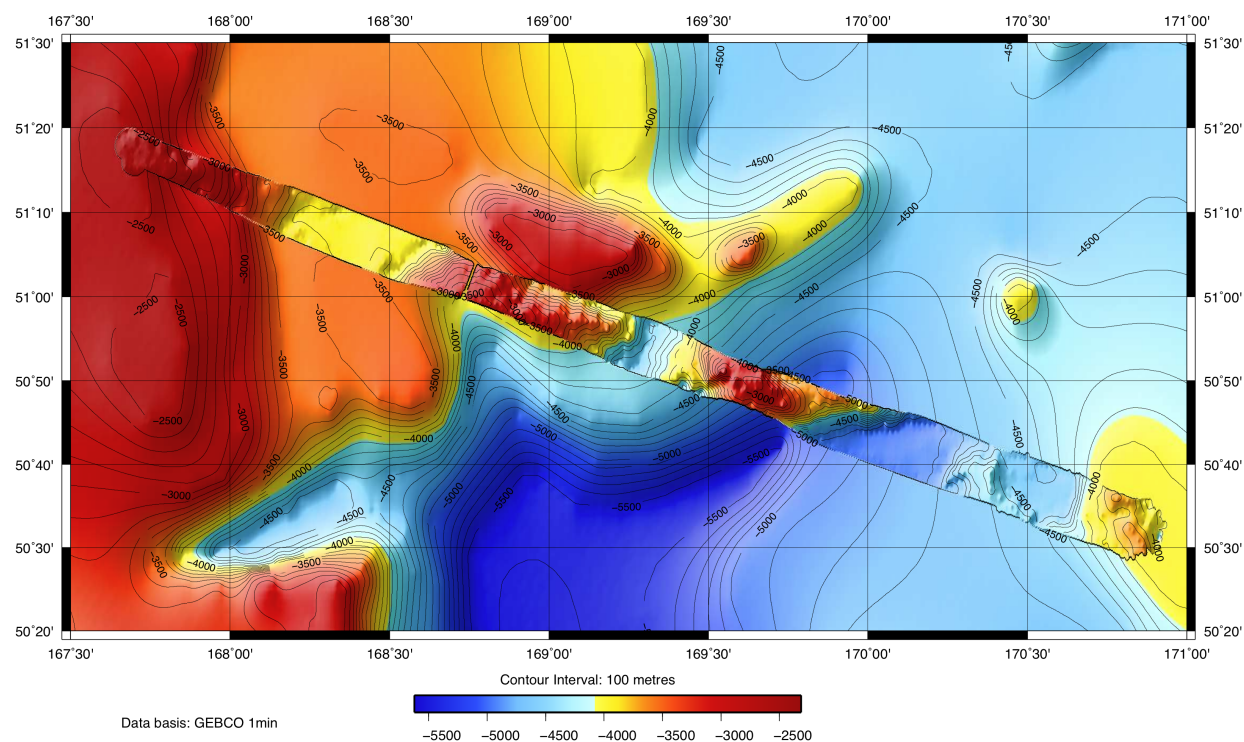


Fig. A.7-7 Bathymetric map day 17.7.2009 (scale 1:1.500.000)

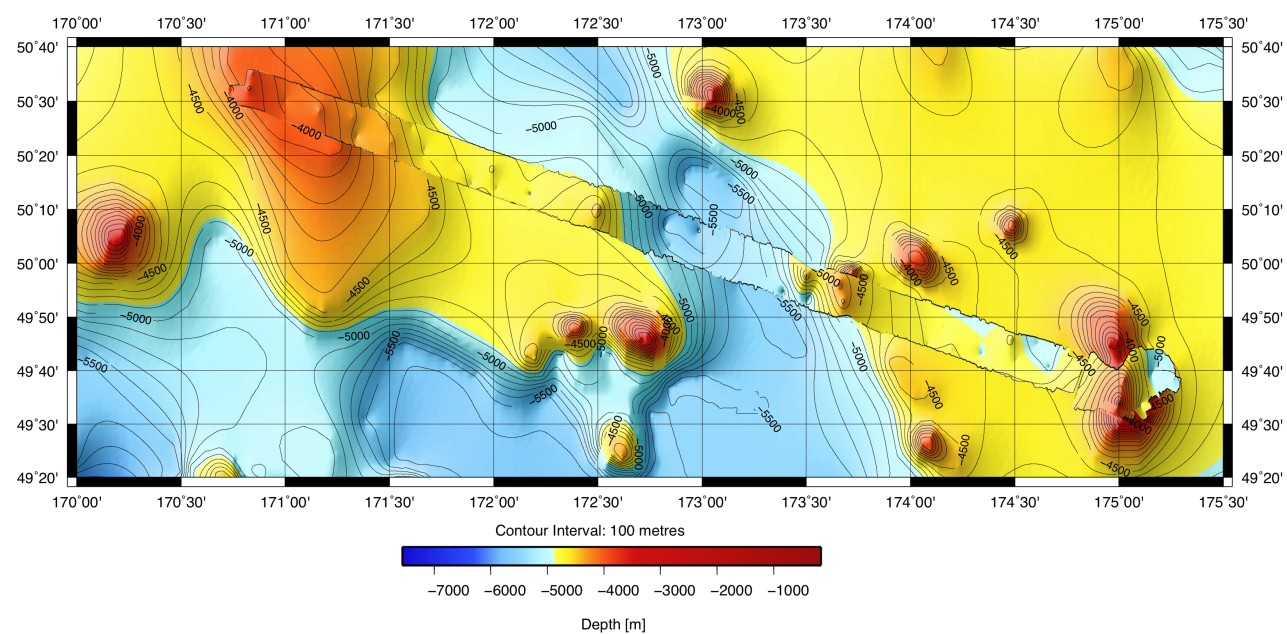


Fig. A.7-8 Bathymetric map day 18.7.2009 (scale 1:1.600.000)

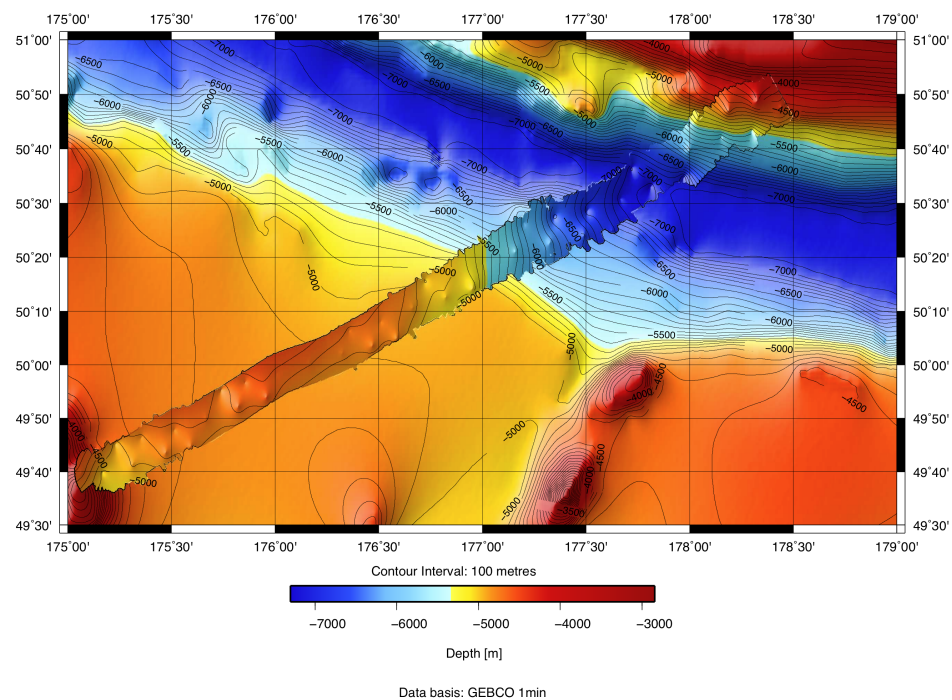


Fig. A.7-9 Bathymetric map day 19.7.2009 (scale 1:1.400.000)

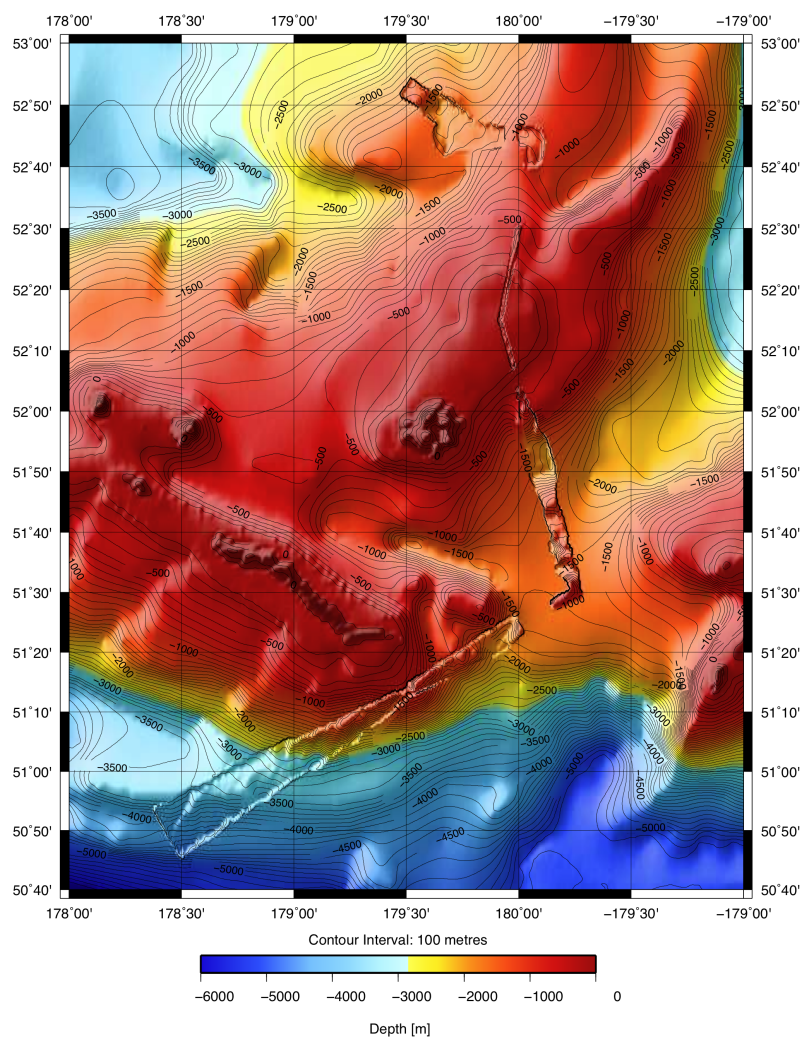


Fig. A.7-10 Bathymetric map day 20.7.2009 (scale 1:1.400.000)

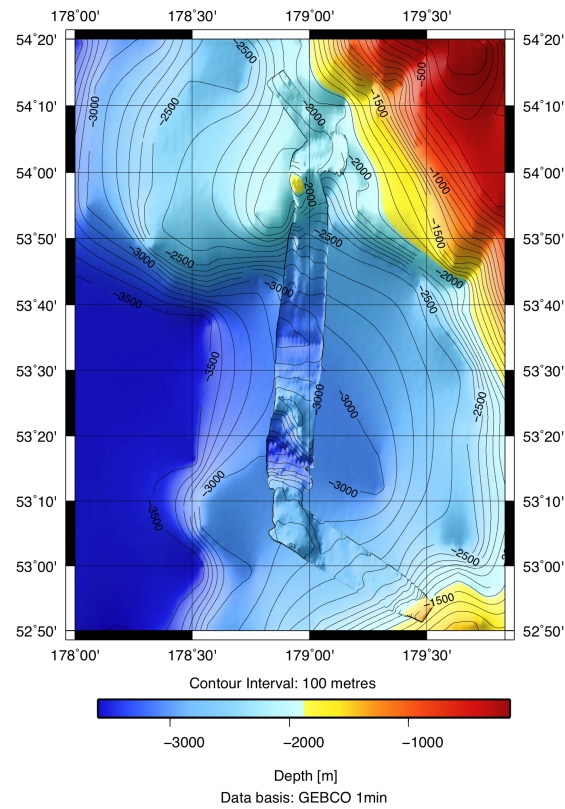


Fig. A.7-11 Bathymetric map day 21.7.2009 (scale 1:1.400.000)

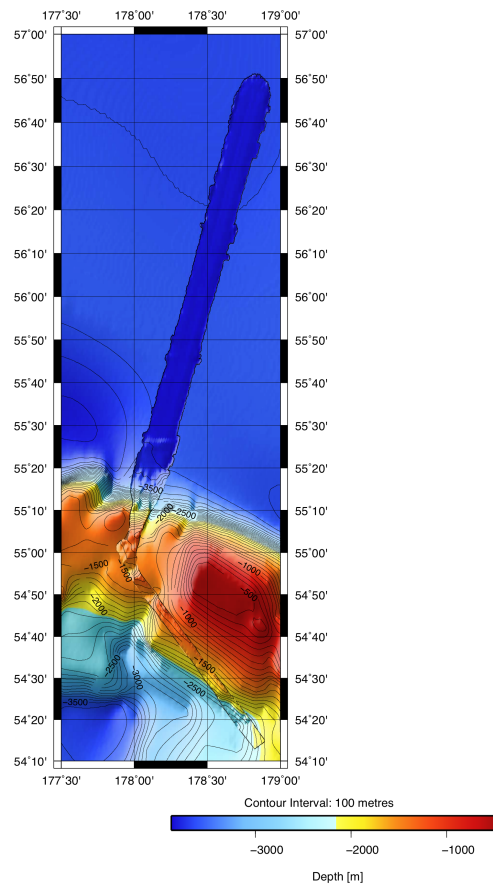


Fig. A.7-12 Bathymetric map day 22.7.2009 (scale 1:1.400.000)

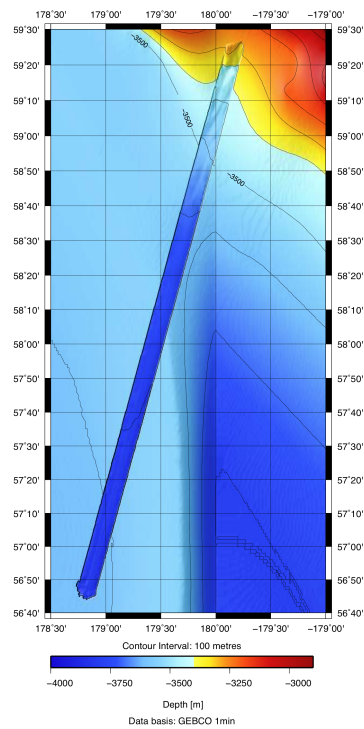


Fig. A.7-13 Bathymetric map day 23.7.2009 (scale 1:1.900.000)

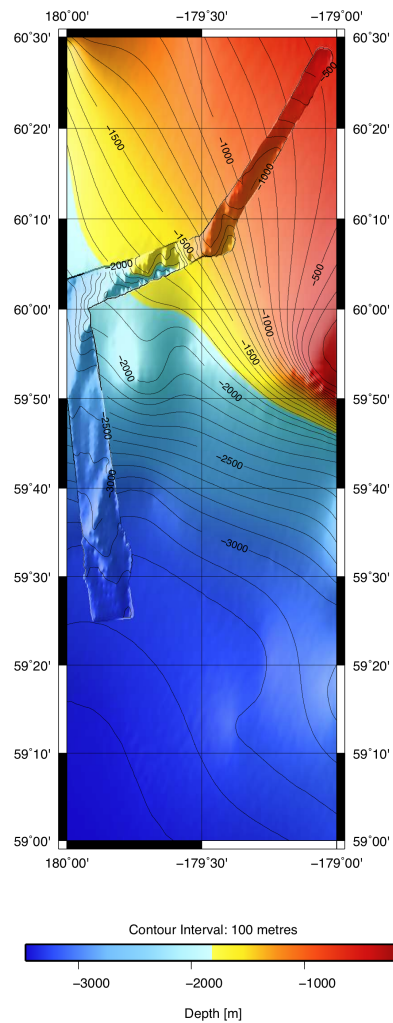


Fig. A.7-14 Bathymetric map day 24.7.2009 (scale 1:1.100.000)

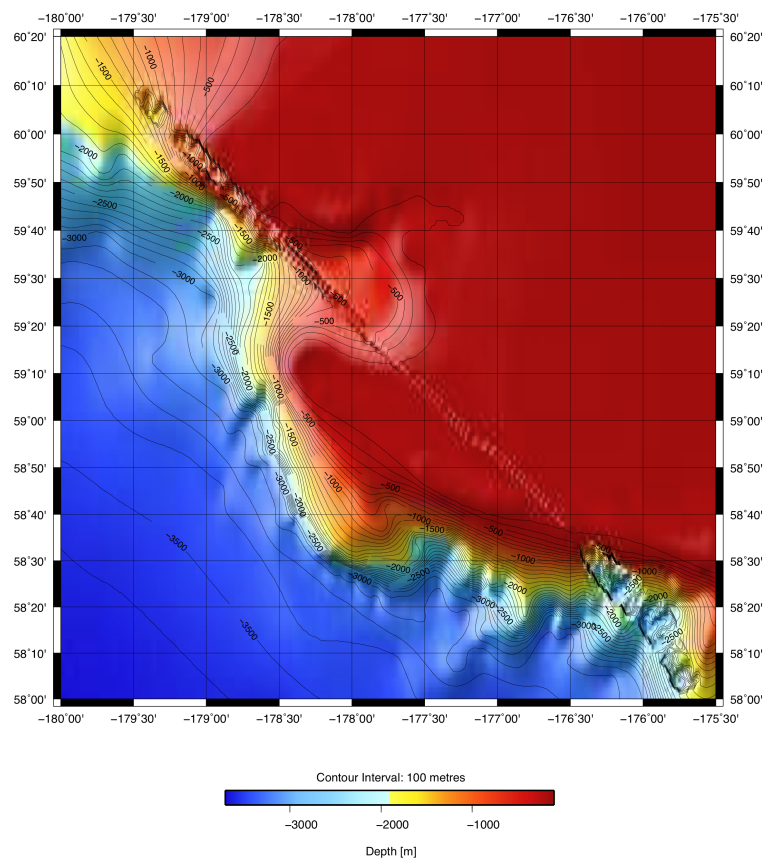


Fig. A.7-15 Bathymetric map day 25.7.2009 (scale 1:1.800.000)

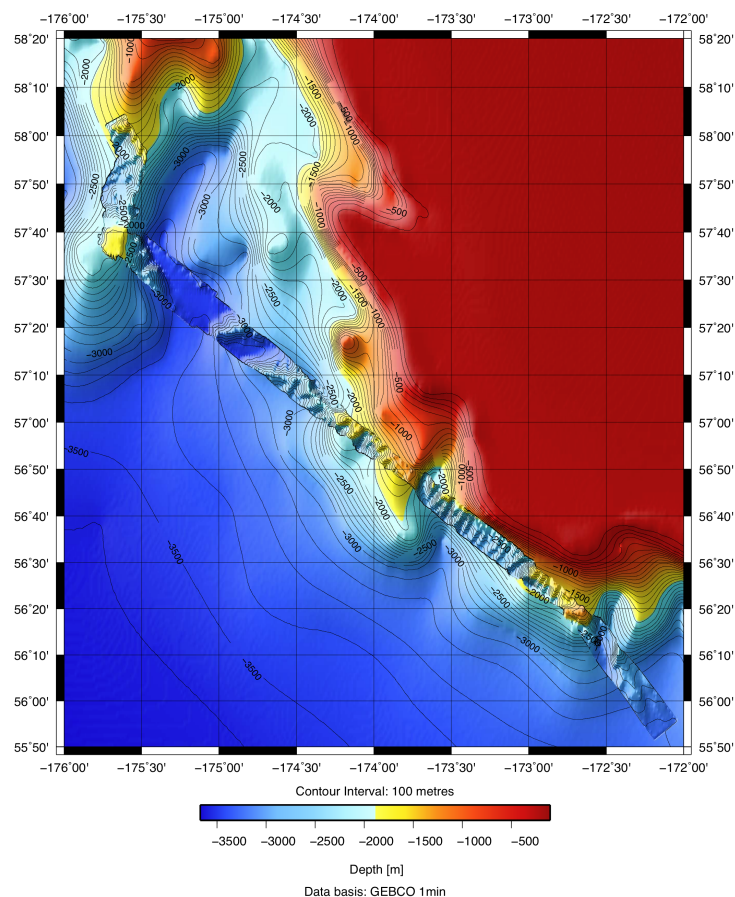


Fig. A.7-16 Bathymetric map day 26.7.2009 (scale 1:1.800.000)

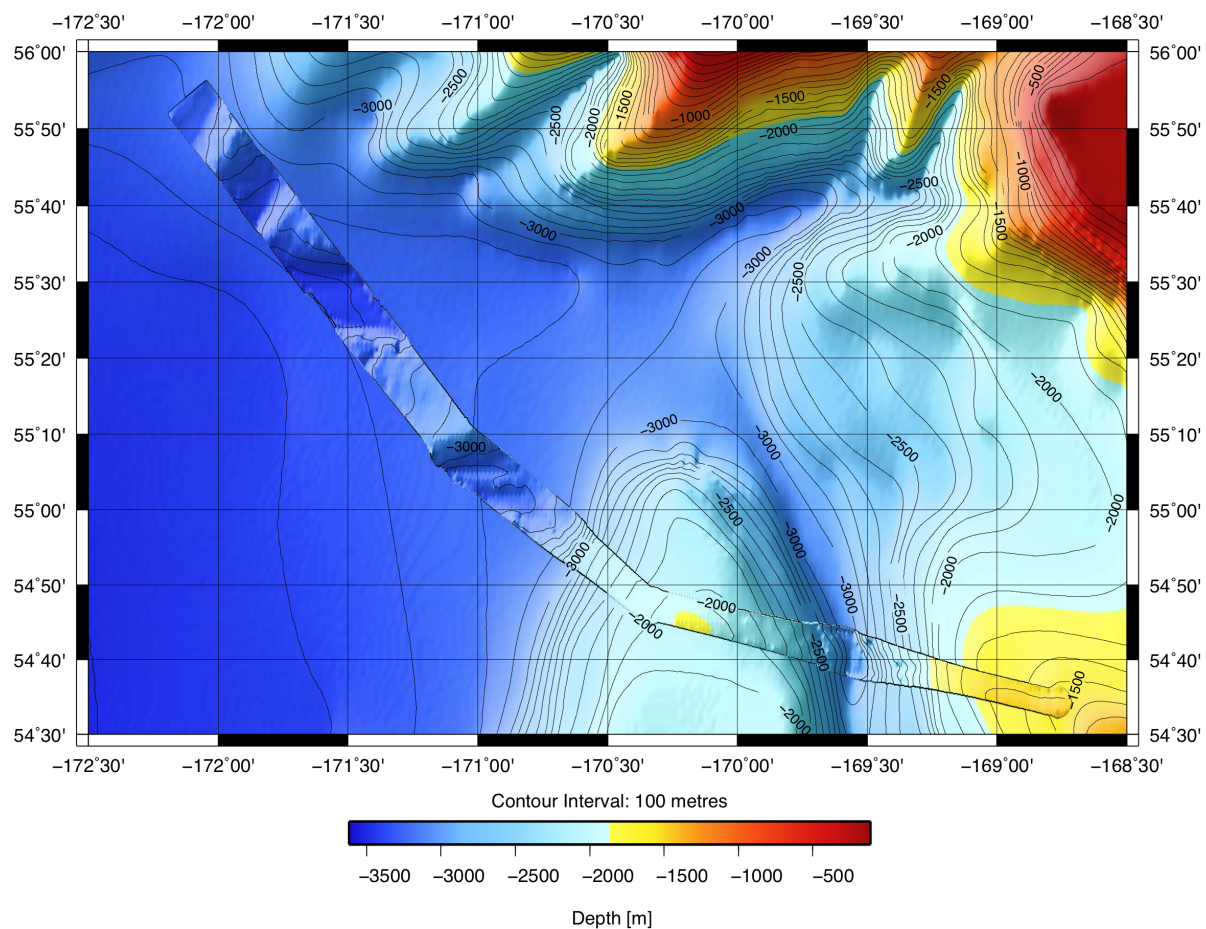


Fig. A.7-17 Bathymetric map day 27.7.2009 (scale 1:1.600.000)

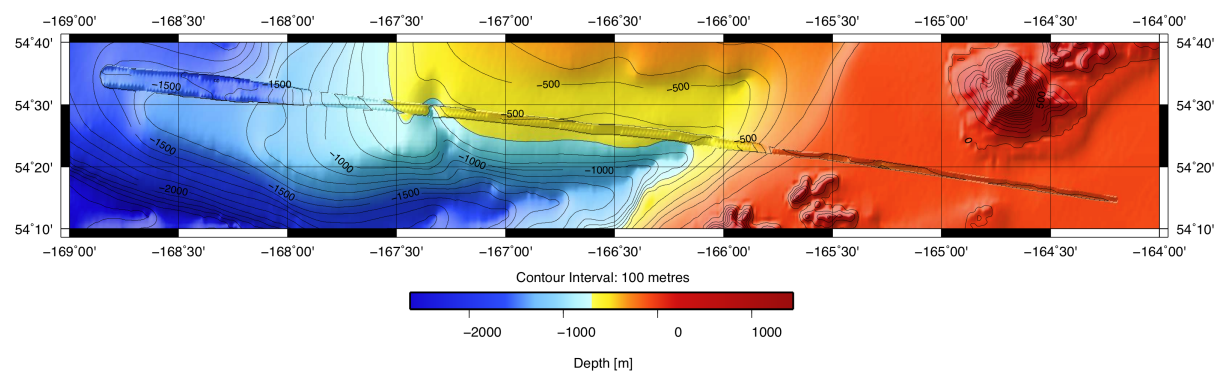
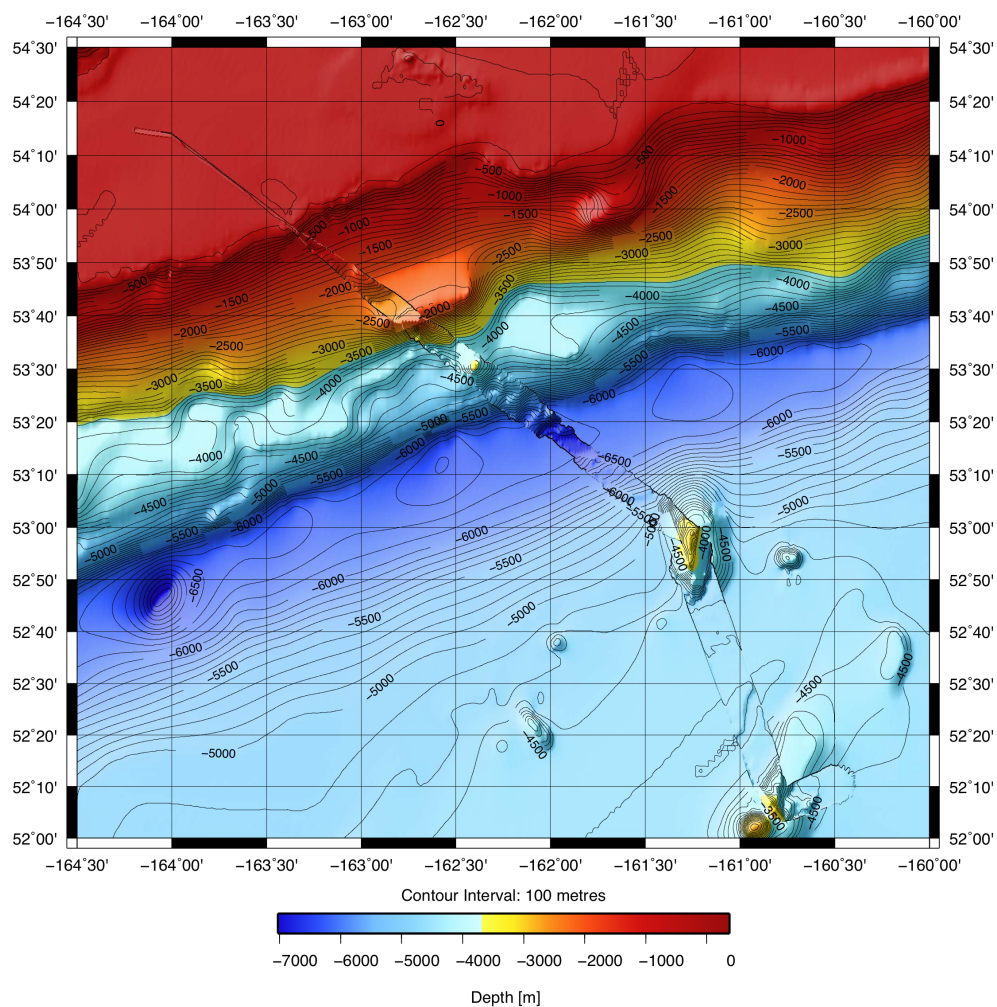
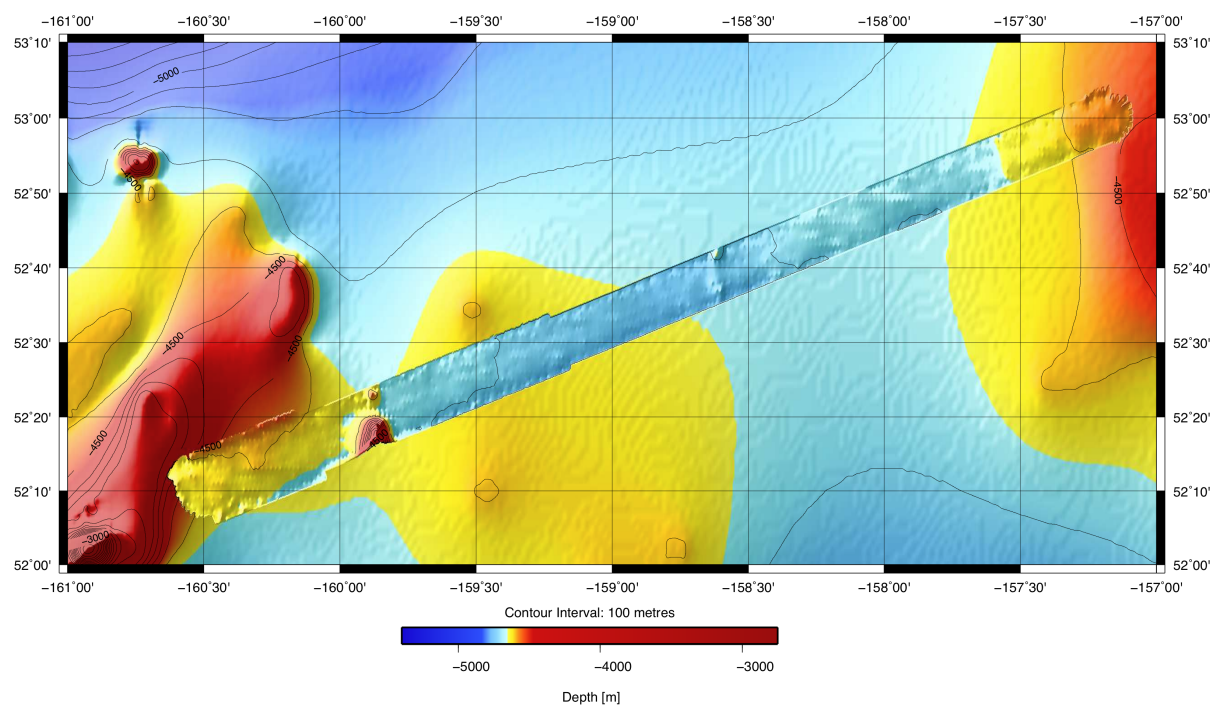


Fig. A.7-18 Bathymetric map day 28.7.2009 (scale 1:1.400.000)



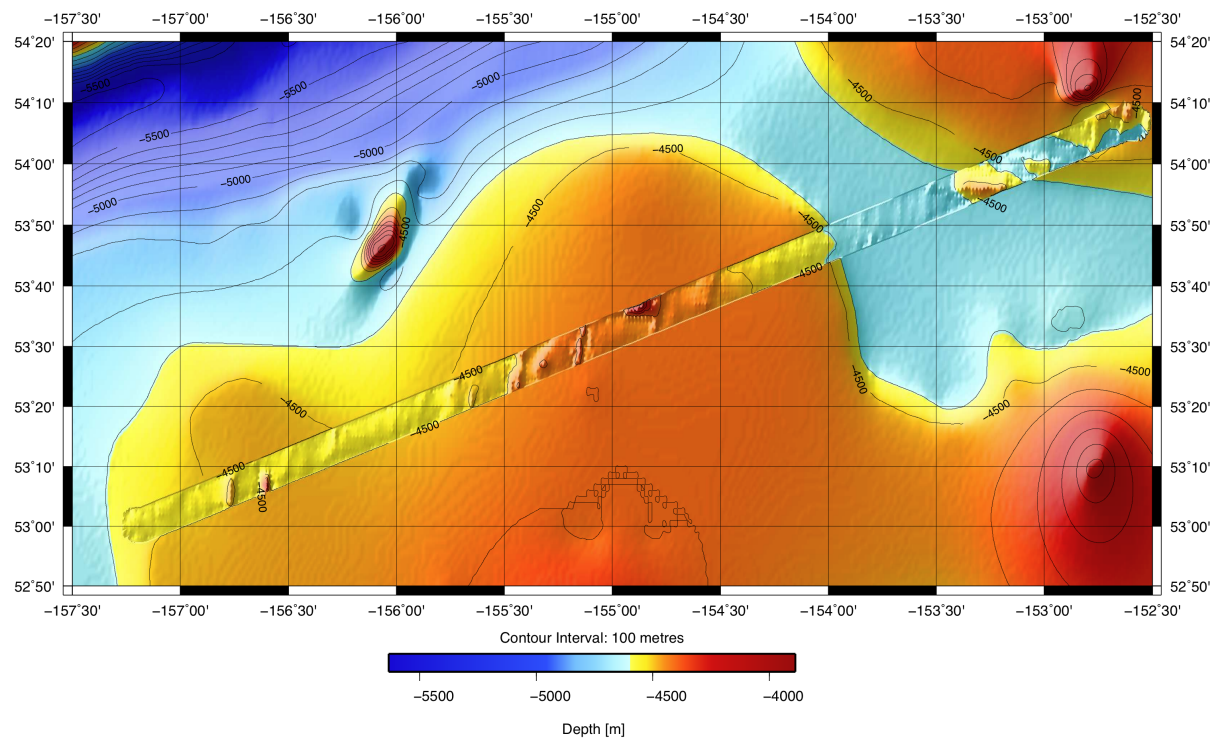
Data basis: GEBCO 1min

Fig. A.7-19 Bathymetric map day 29.7.2009 (scale 1:1.900.000)



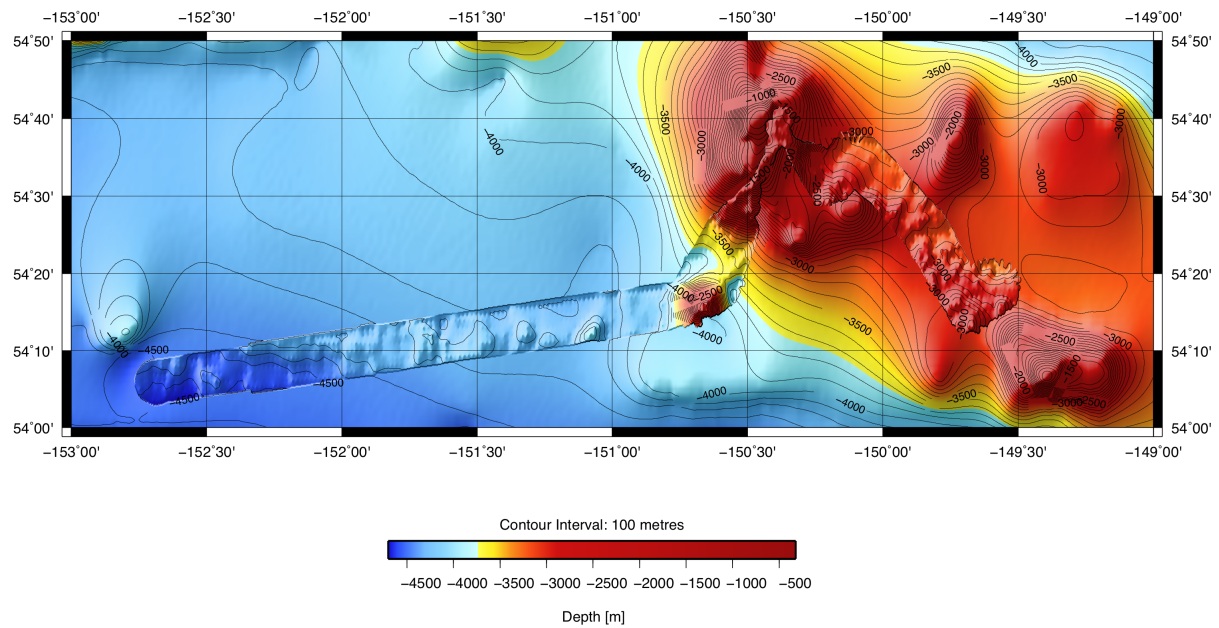
Data basis: GEBCO 1min

Fig. A.7-20 Bathymetric map day 30.7.2009 (scale 1:1.100.000)



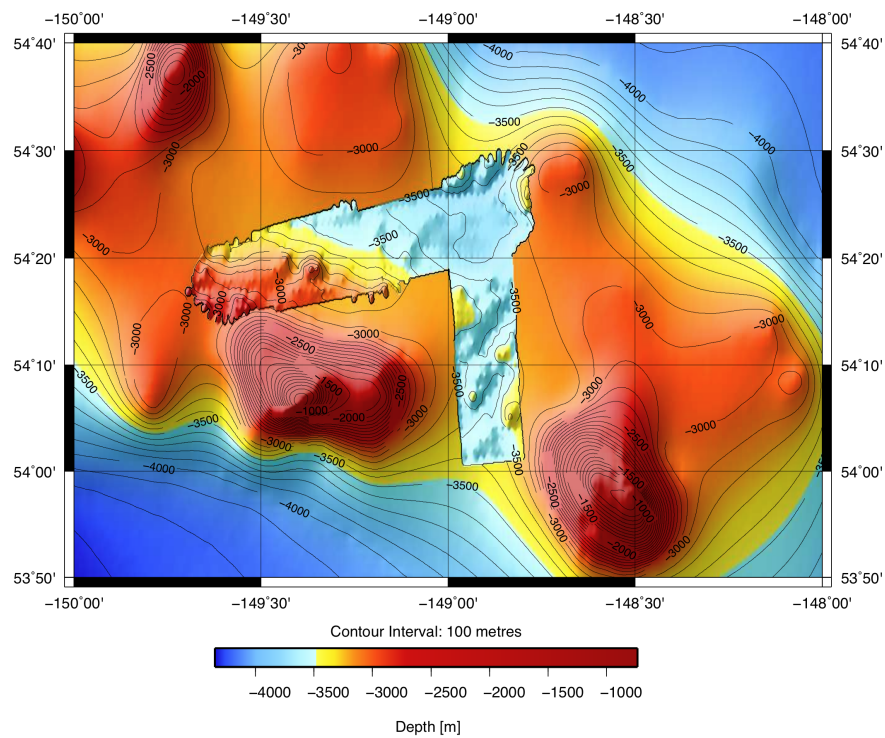
Data basis: GEBCO 1min

Fig. A.7-21 Bathymetric map day 31.7.2009 (scale 1:1.500.000)



Data basis: GEBCO 1min

Fig. A.7-22 Bathymetric map day 1.8.2009 (scale 1:1.200.000)



Data basis: GEBCO 1min

Fig. A.7-23 Bathymetric map day 2.8.2009 (scale 1:1.900.000)

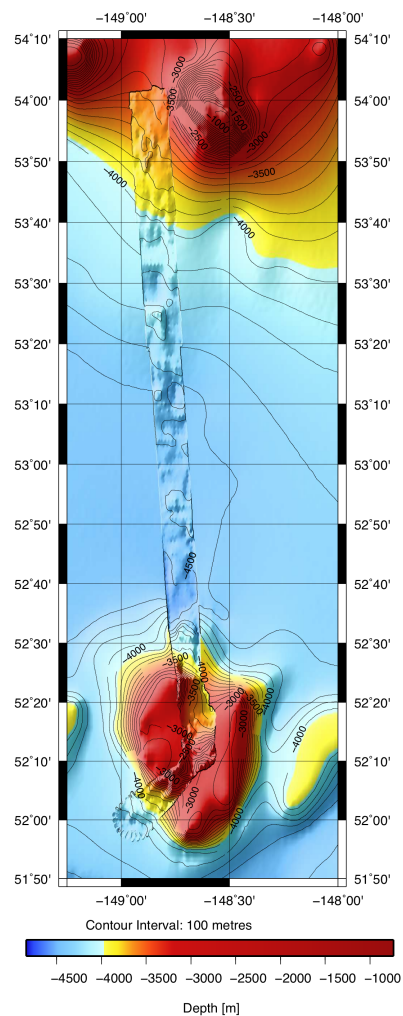


Fig. A.7-24 Bathymetric map day 3.8.2009 (scale 1:1.350.000)

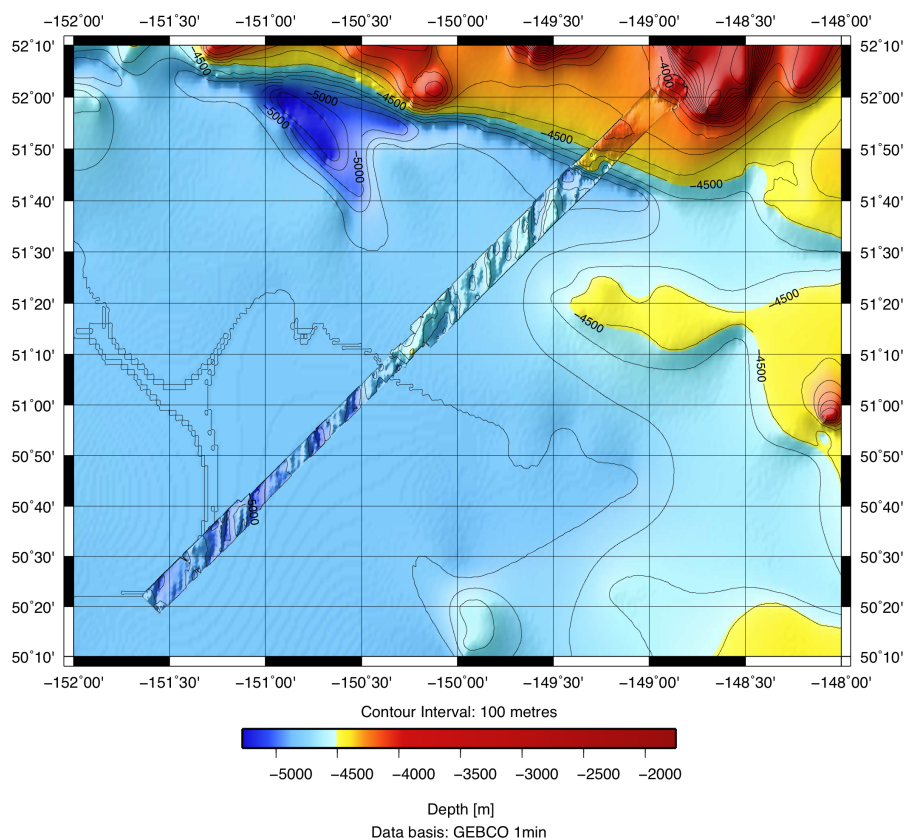


Fig. A.7-25 Bathymetric map day 4.8.2009 (scale 1:1.800.000)

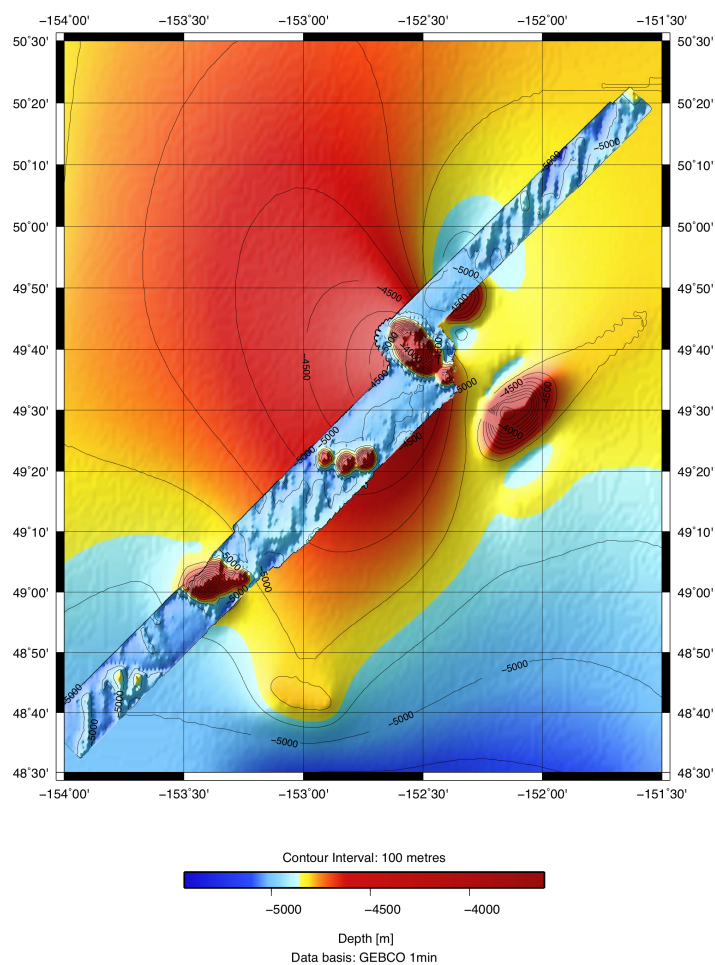


Fig. A.7-26 Bathymetric map day 5.8.2009 (scale 1:1.200.000)

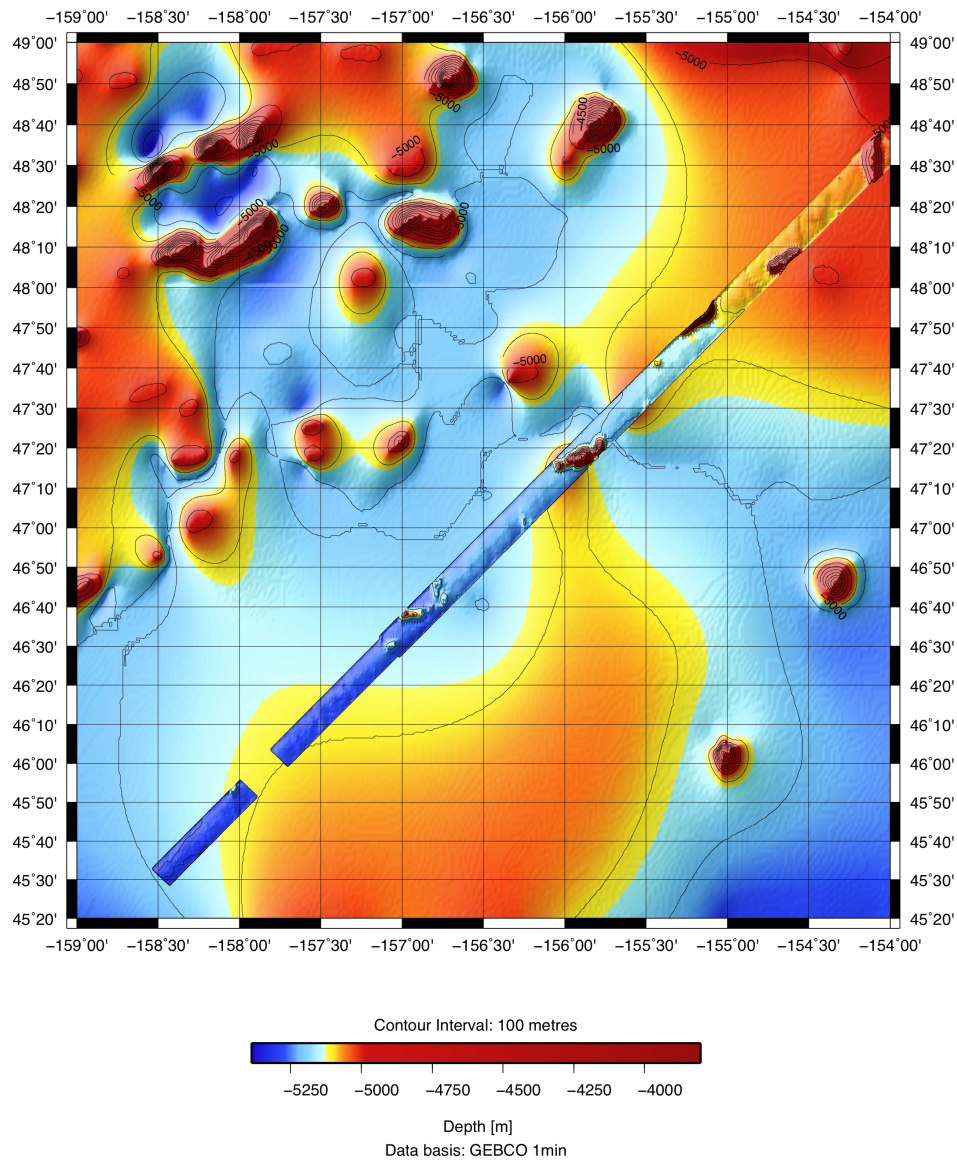


Fig. A.7-27 Bathymetric map day 6.8.2009 (scale 1:1.220.000)

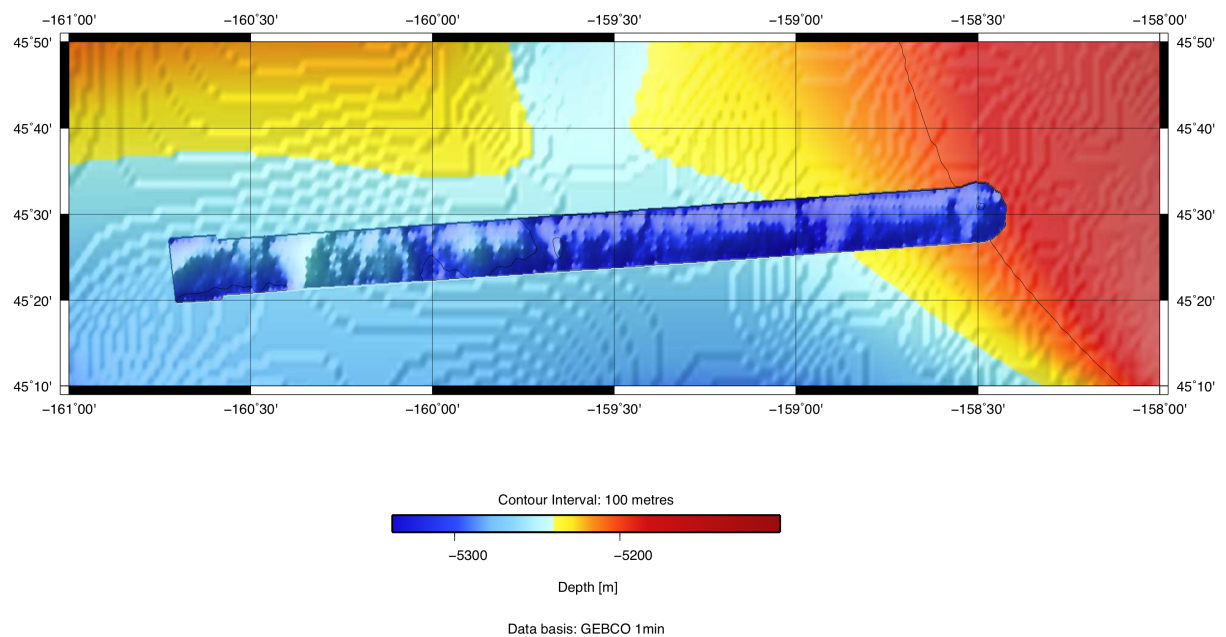


Fig. A.7-28 Bathymetric map day 7.8.2009 (scale 1:1.850.000)

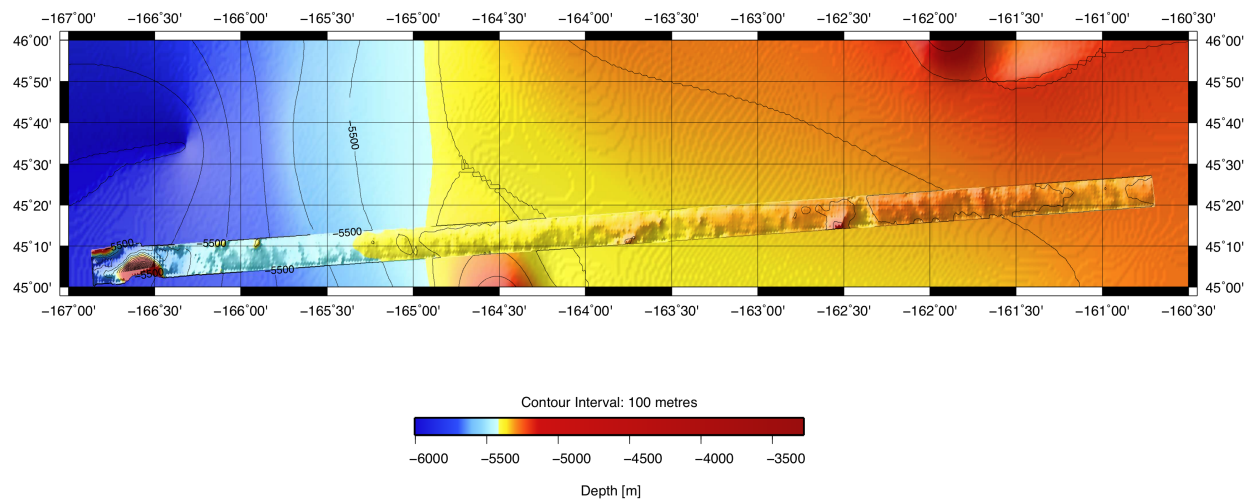


Fig. A.7-29 Bathymetric map day 8.8.2009 (scale 1:1.800.000)

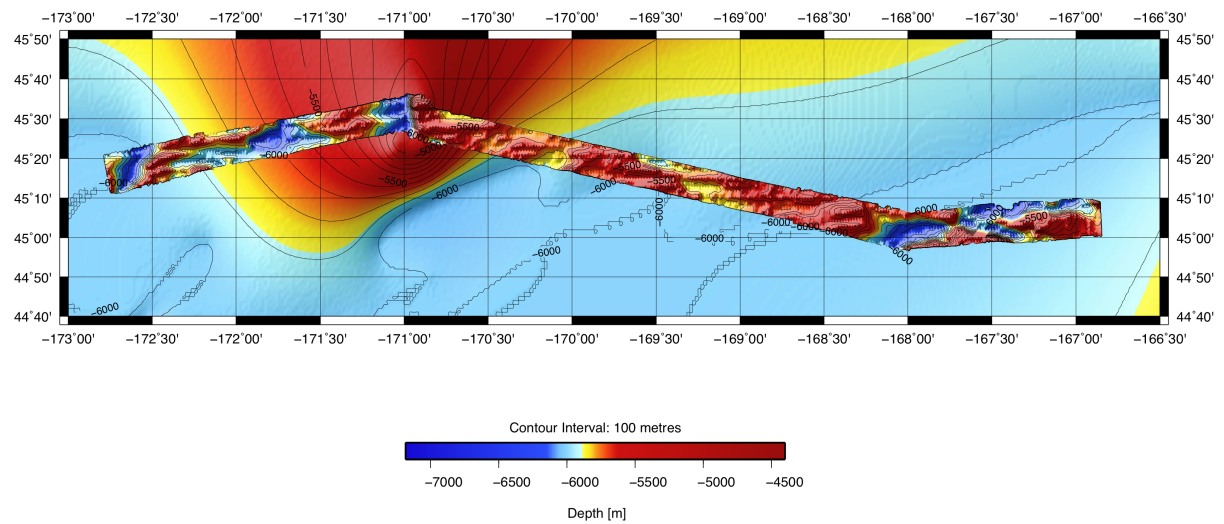
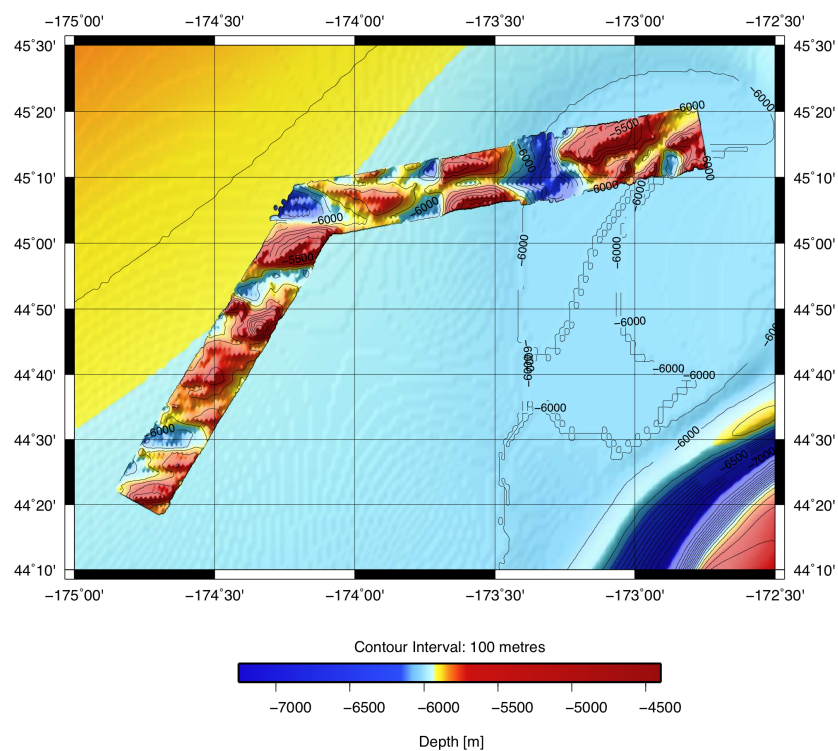
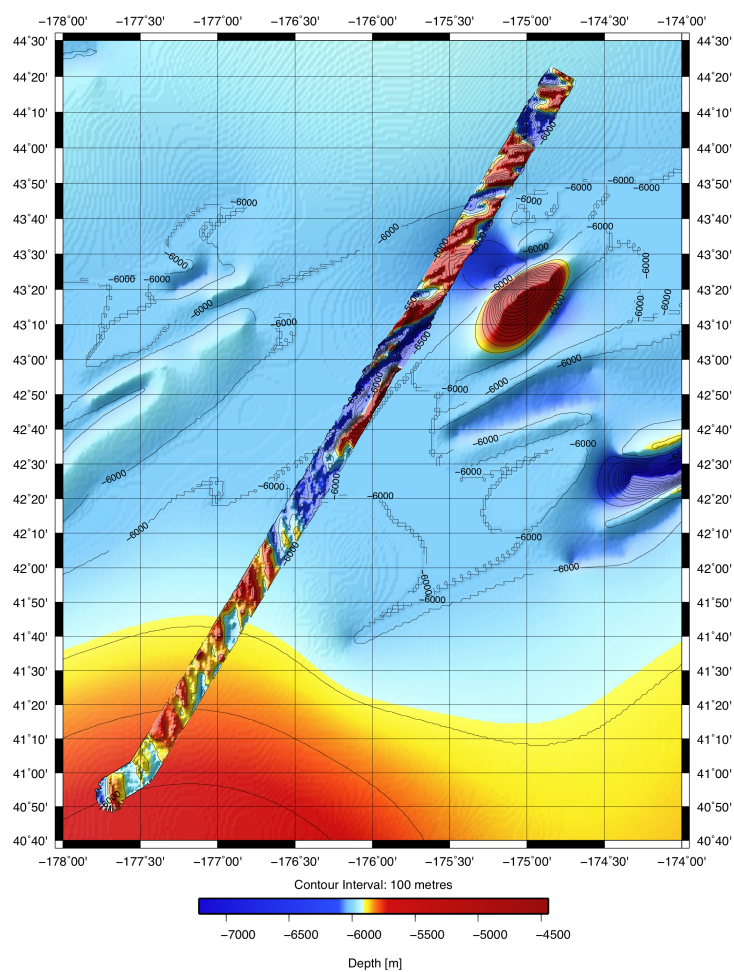


Fig. A.7-30 Bathymetric map day 9.8.2009 (scale 1:1.800.000)



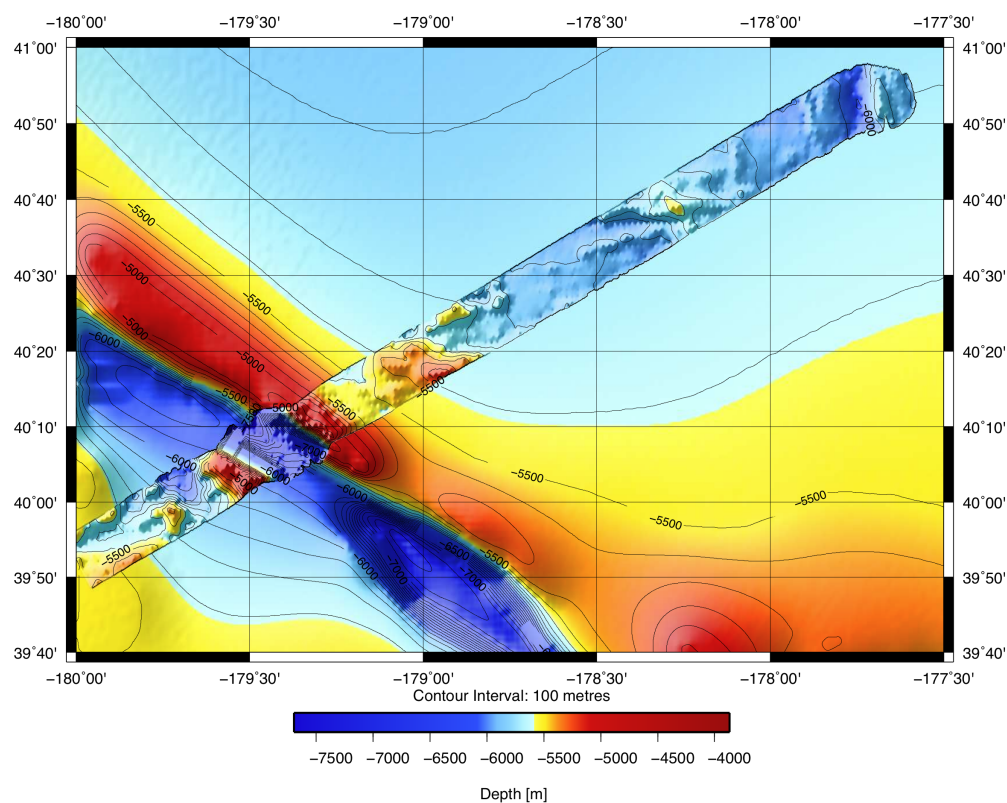
Data basis: GEBCO 1min

Fig. A.7-31 Bathymetric map day 10.8.2009 (scale 1:1.200.000)



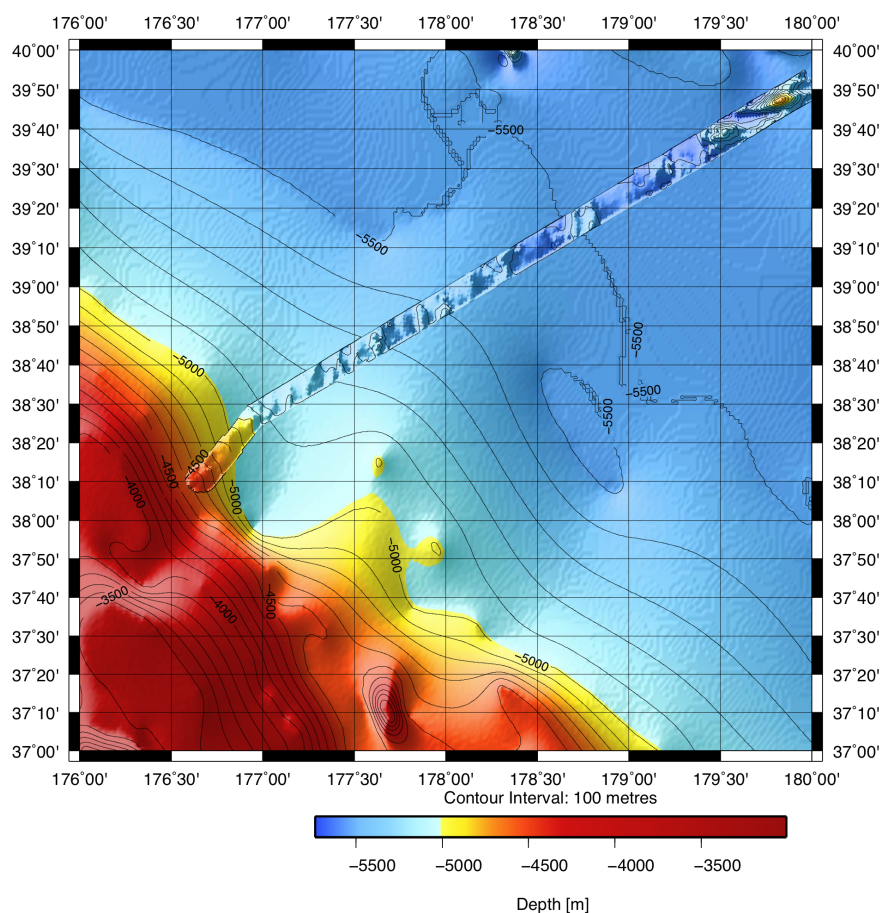
Data basis: GEBCO 1min

Fig. A.7-32 Bathymetric map day 11.8.2009 (scale 1:1.800.000)



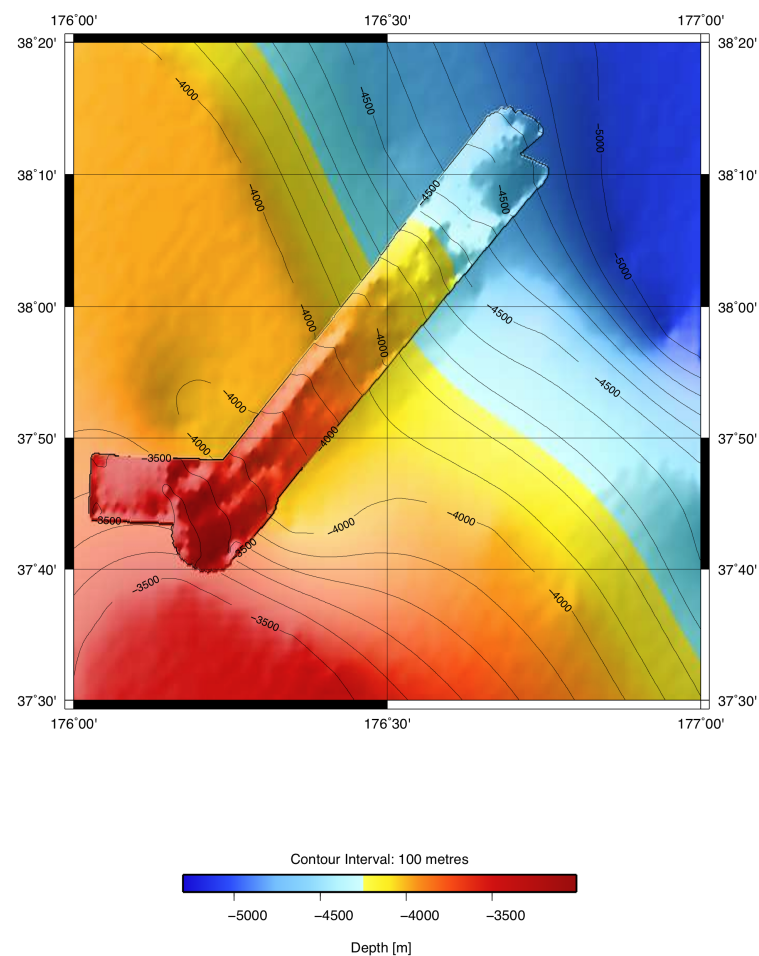
Data basis: GEBCO 1min

Fig. A.7-33 Bathymetric map day 12.8.2009 (scale 1:1.000.000)



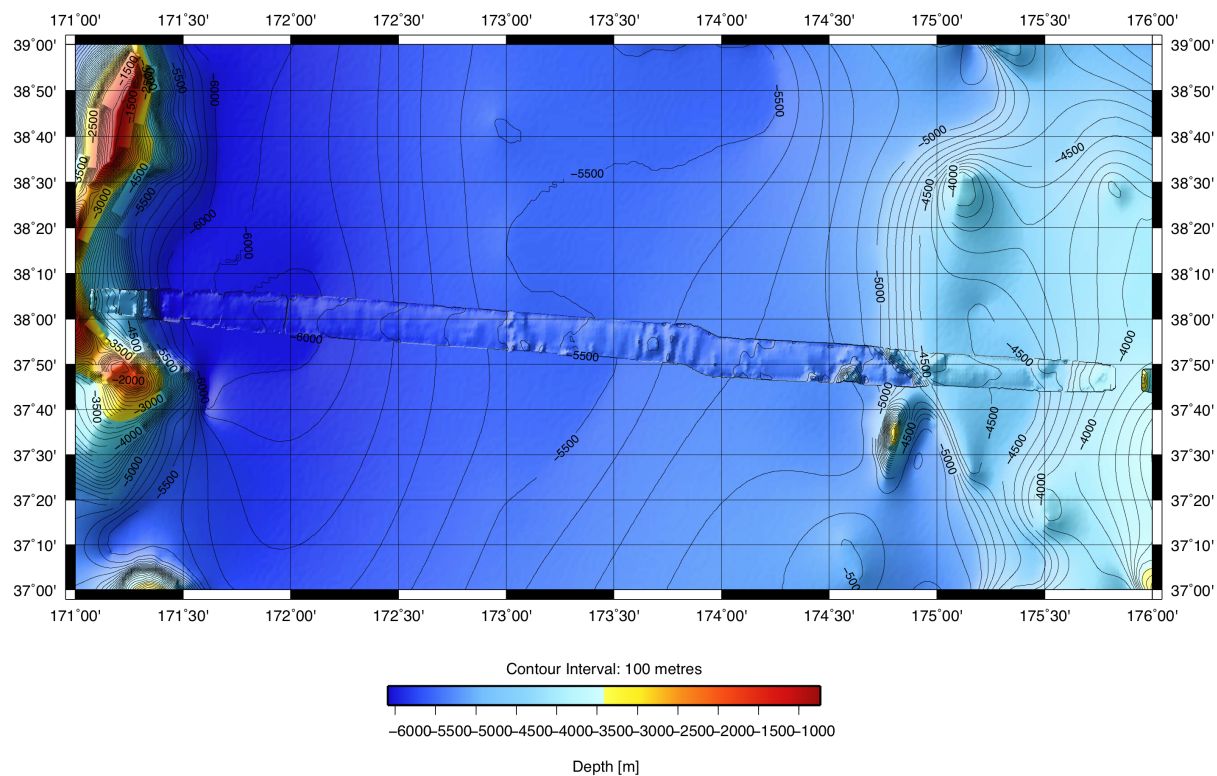
Data basis: GEBCO 1min

Fig. A.7-34 Bathymetric map day 13.8.2009 (scale 1:2.050.000)



Data basis: GEBCO 1min

Fig. A.7-35 Bathymetric map day 14.8.2009 (scale 1:1.500.000)



Data basis: GEBCO 1min

Fig. A.7-36 Bathymetric map day 15.8.2009 (scale 1:1.600.000)

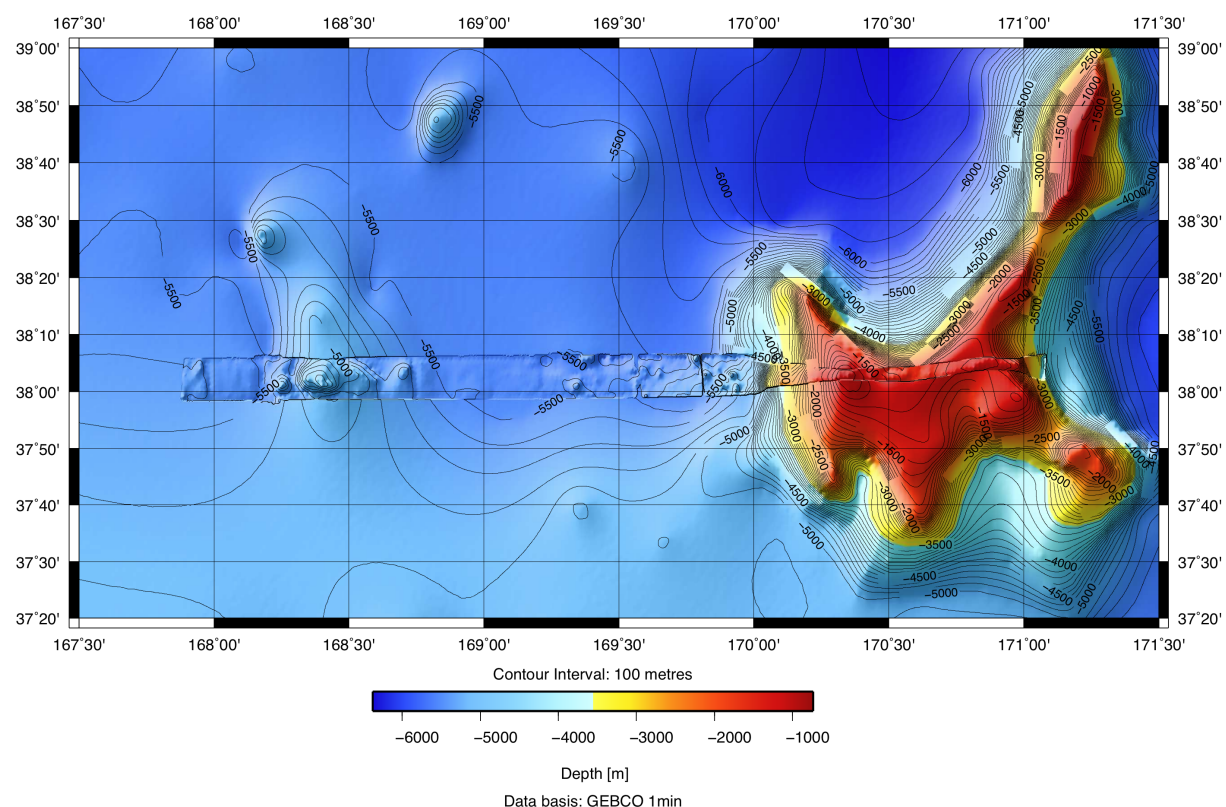


Fig. A.7-37 Bathymetric map day 16.8.2009 (scale 1:1.300.000)

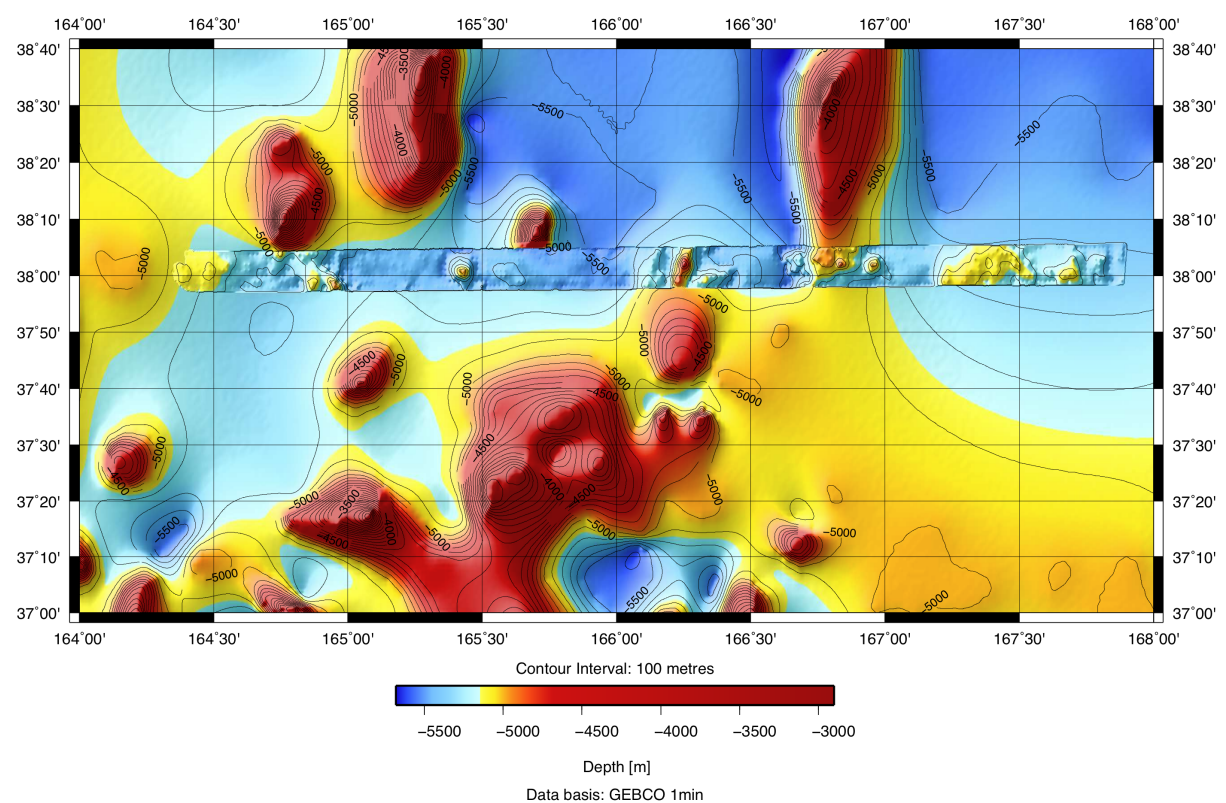
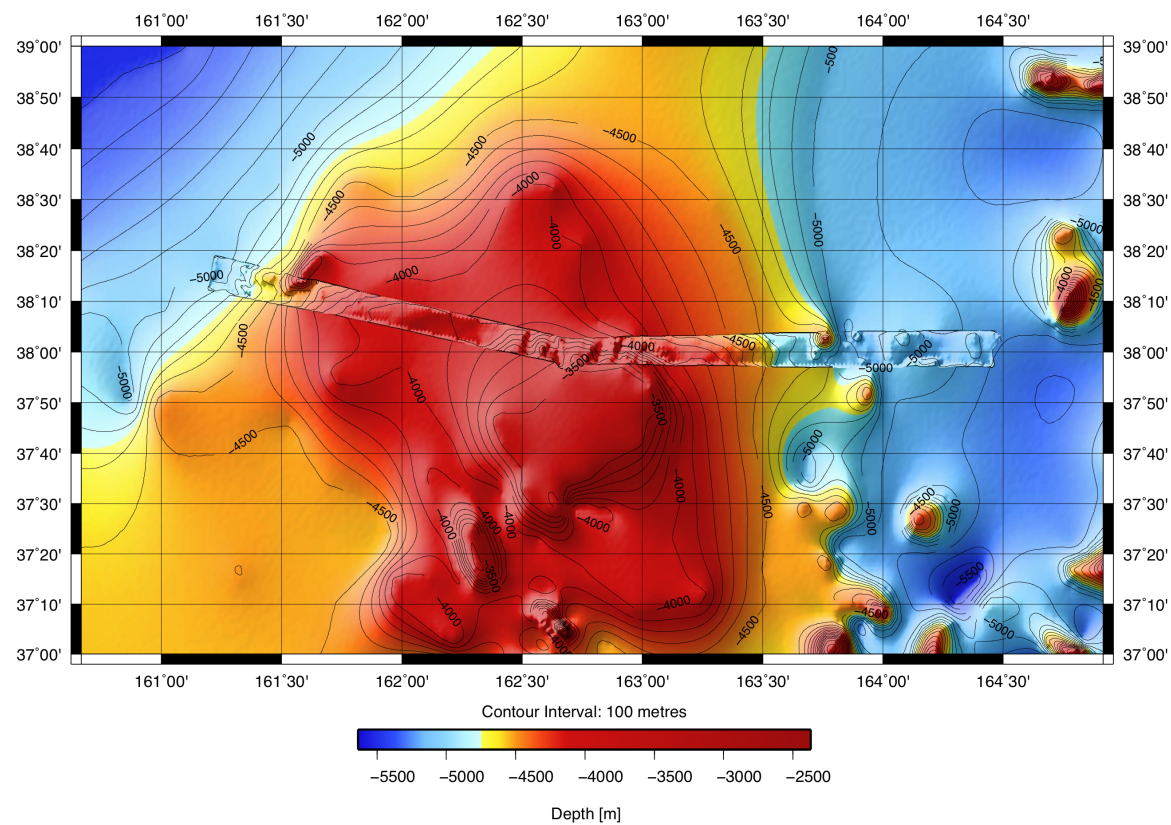
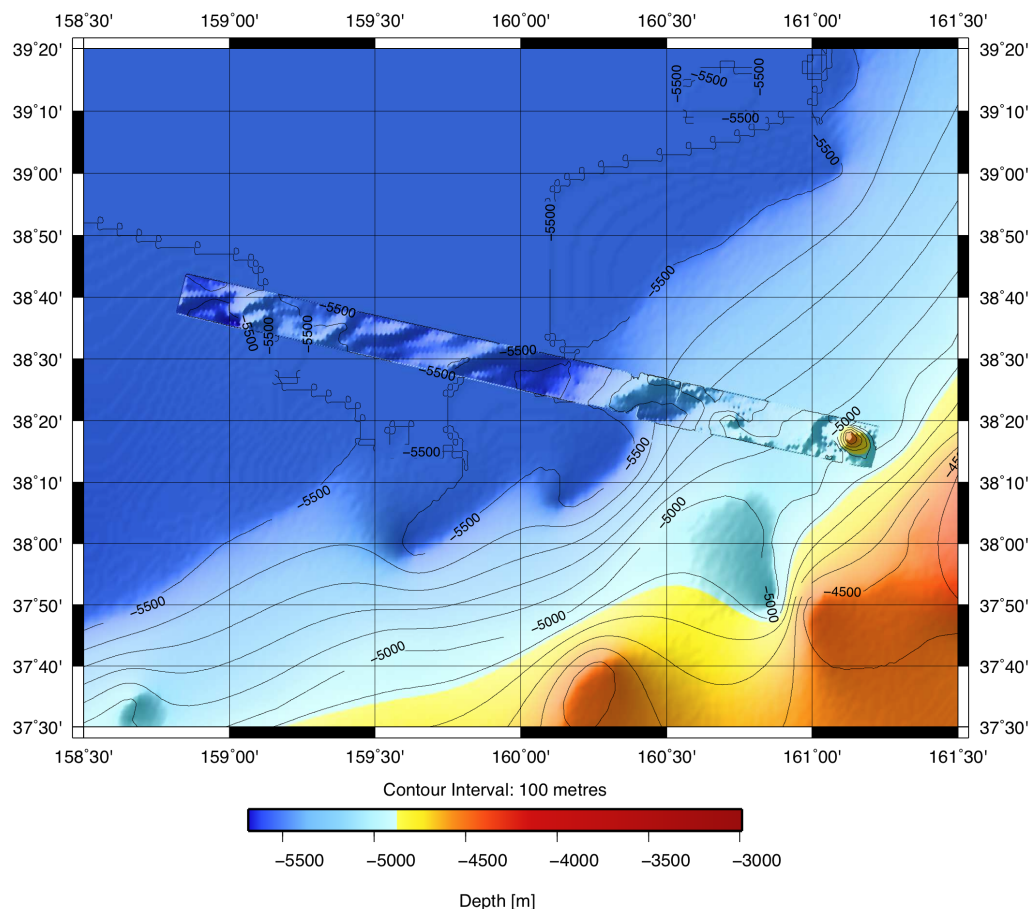


Fig. A.7-38 Bathymetric map day 17.8.2009 (scale 1:1.300.000)



Data basis: GEBCO 1min

Fig. A.7-39 Bathymetric map day 18.8.2009 (scale 1:1.500.000)



Data basis: GEBCO 1min

Fig. A.7-40 Bathymetric map day 19.8.2009 (scale 1:1.350.000)

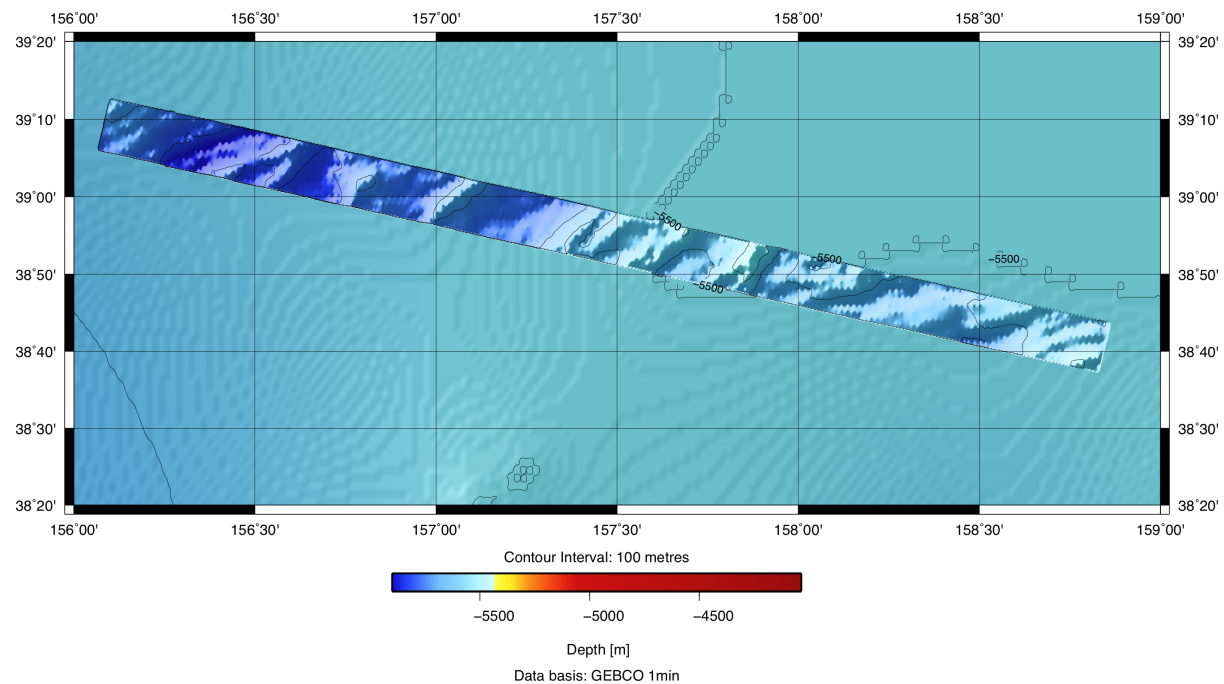


Fig. A.7-41 Bathymetric map day 20.8.2009 (scale 1:1.900.000)

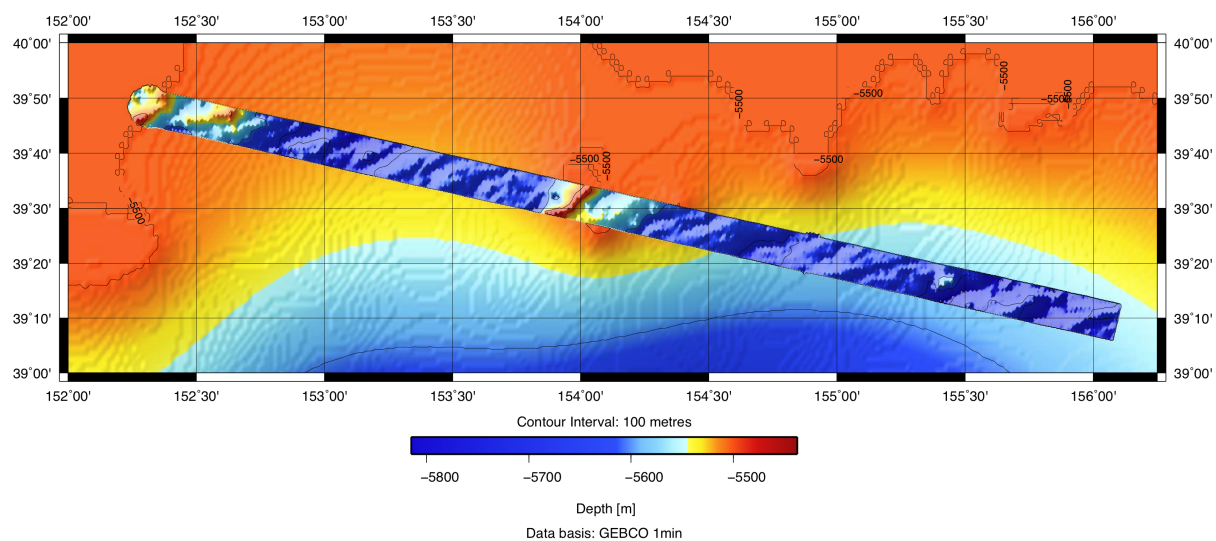


Fig. A.7-42 Bathymetric map day 21.8.2009 (scale 1:1.200.000)

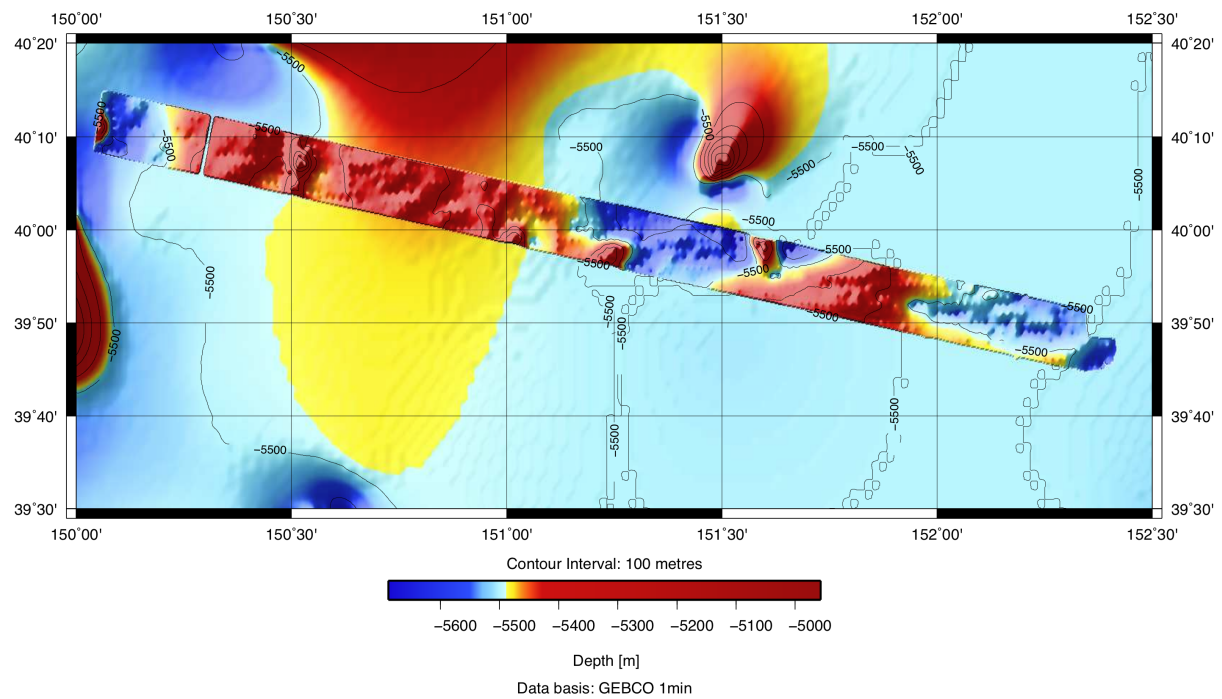


Fig. A.7-43 Bathymetric map day 22.8.2009 (scale 1:1.800.000)

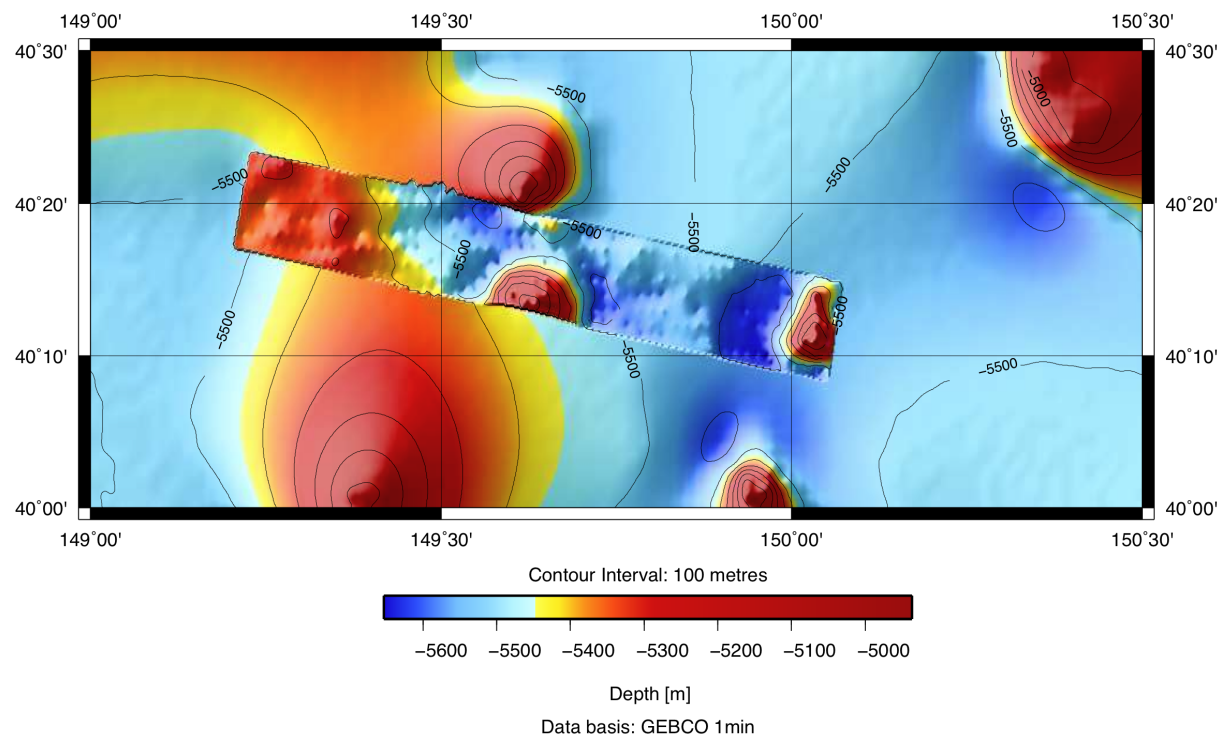


Fig. A.7-44 Bathymetric map day 23.8.2009 (scale 1:1.600.000)